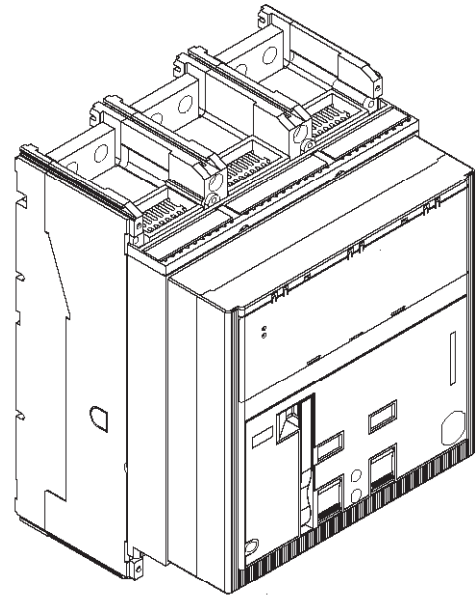
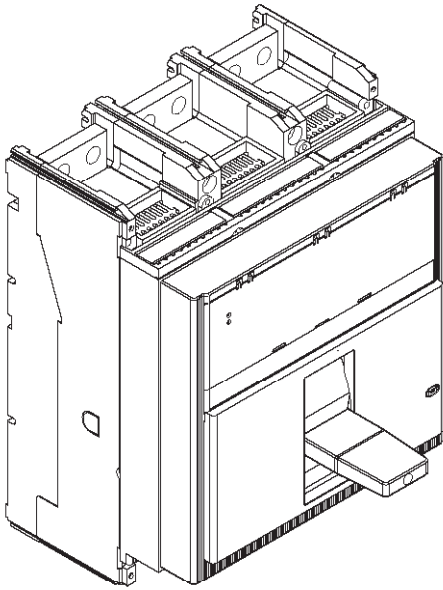


# Tmax T7-T7M

DOC. N.° 1SDH000606R0001

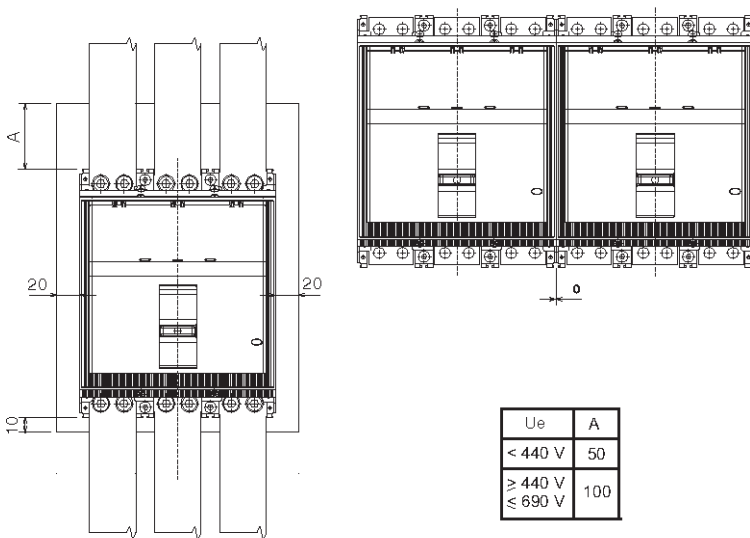
L3194



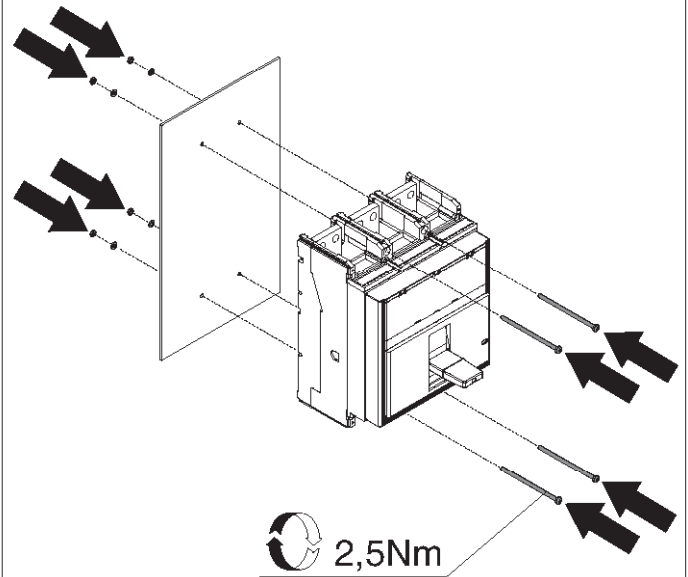
1-5

Installation directions

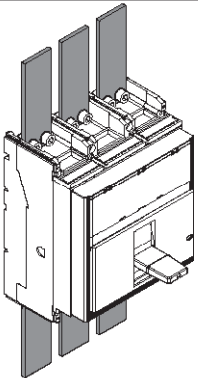
1



2



3



Usare cavi o barre isolate/o eseguire prove di tipo specifiche sull' installazione.

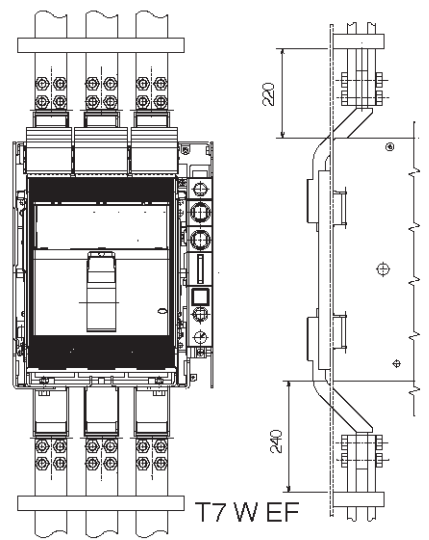
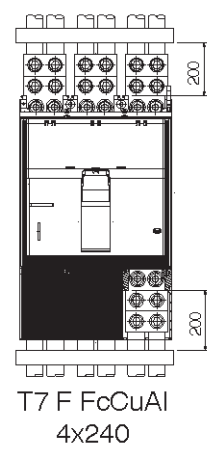
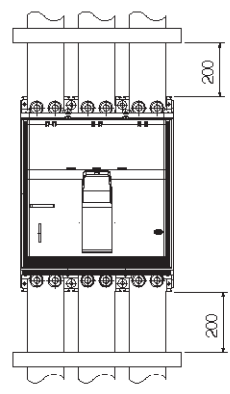
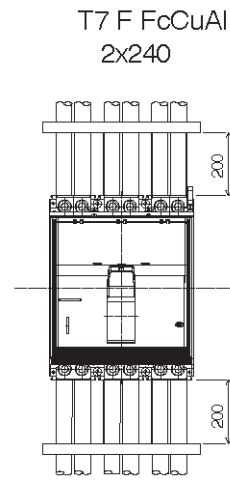
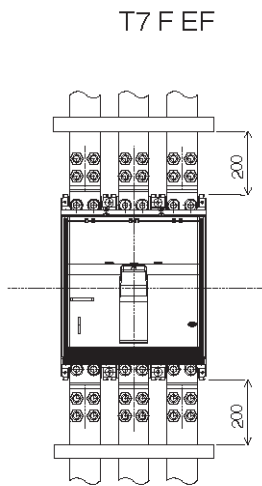
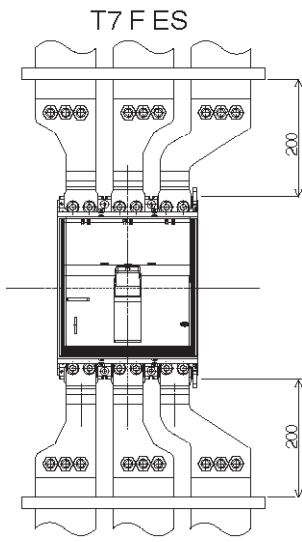
Use cable or insulated busbars/or perform specific type test on the installation.

Kabel oder isolierte Sammelschienen verwenden /oder die spezifische Typprüfung auf der Installation durchführen.

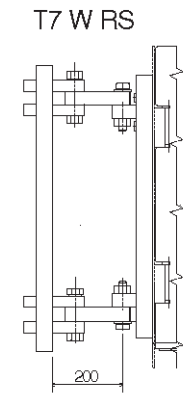
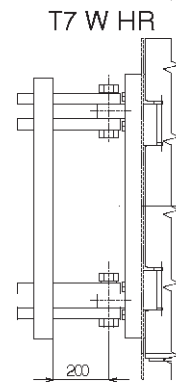
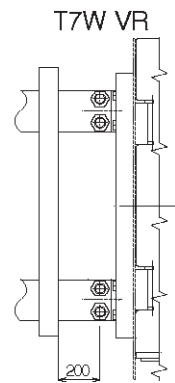
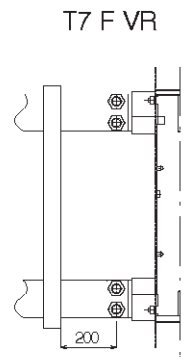
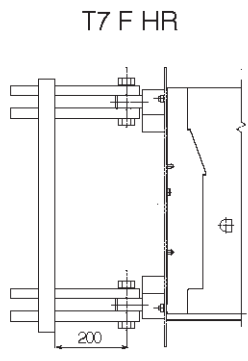
Utiliser un câble ou des barres isolées/ou réaliser un test de type spécifique sur installation.

Utilizar un cable o barras aisladas /o efectuar una prueba de tipo específico sobre instalación

4



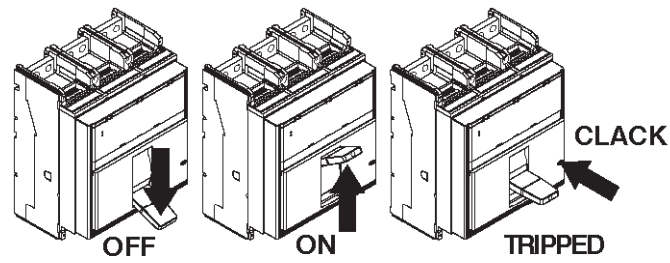
5



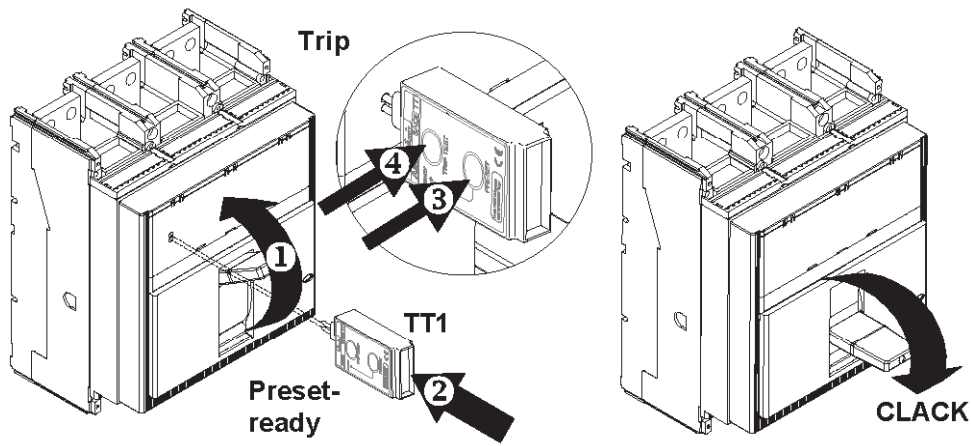
6-9

Operating sequences and resetting due to tripping of release

6



7



Trip test  
Trip test  
Auslöseprüfung  
Test de déclenchement  
Test de disparo

T7  
PR231  
PR232

8

		SEQUENZA DI MANOVRA OPERATING SEQUENCE SCHALTSEQUENZ SÉQUENCE DE MANŒUVRES SECUENCIA DE MANIOBRA	T7M
BIANCO WHITE WEISS BLANC BLANCO		APERTO OPEN AUS-STELLUNG OUVERT ABIERTO	
			Carica molle Spring loading Federn spannen Réarmement resorts Carga resortes
GIALLO YELLOW GELB JAUNE AMARILLO			Molle cariche Springs loaded Federn gespannt Ressorts armés Resortes cargados
		CHIUSURA CLOSING EINSCHALTEN FERMETURE CIERRE	Chiusura interruttore Circuit breaker closing Leistungsschalter einschalten Fermeture disjoncteur Cierre interruptor
BIANCO WHITE WEISS BLANC BLANCO		CHIUSO CLOSED EINGESCHALTET FERMÉ CERRADO	Interruttore chiuso, molle scariche Circuit breaker closed, springs unloaded Leistungsschalter geschlossen, Federn entspannt Disjoncteur fermé, ressorts désarmés Interruptor cerrado, resortes descargados
APERTURA OPENING AUSSCHALTEN OUVERTURE APERTURA			Apertura interruttore Circuit breaker opening Ausschaltung Leistungsschalter Ouverture disjoncteur Apertura interruptor
		APERTO OPEN AUS-STELLUNG OUVERT ABIERTO	Interruttore aperto, molle scariche Circuit breaker open, springs unloaded Leistungsschalter ausgeschaltet, Federn entspannt Disjoncteur ouvert, ressorts désarmés Interruptor abierto, resortes descargados

9

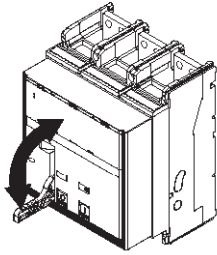
BIANCO  
WHITE  
WEISS  
BANC  
BLANC



APERTO  
OPEN  
AUS-STELLUNG  
OUVERT  
ABIERTO

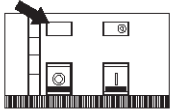
RIPRISTINO PER INTERVENTO SGANCIATORE  
RESETTING DUE TO TRIPPING OF RELEASE  
RÜCKSETZUNG WEGEN AUSLÖSUNG DES AUSLÖSERS  
RÉTABLISSEMENT APRÈS DÉCLENCHEMENT DU DÉCLENCHÉUR  
RESTABLECIMIENTO POR ACTUACIÓN DEL RELÉ

T7M



Carica molle  
Spring loading  
Federn spannen  
Réarmement resorts  
Carga resortes

GIALLO  
YELLOW  
GELB  
JAUNE  
AMARILLO



CHIUSURA  
CLOSING  
EINSCHALTEN  
FERMETURE  
CIERRE

Molle cariche  
Springs loaded  
Federn gespannt  
Ressorts armés  
Resortes cargados

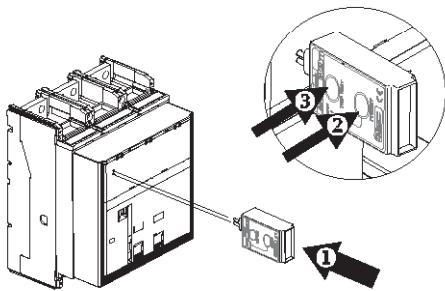
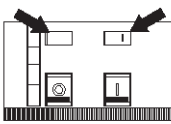


CHIUSO  
CLOSED  
EINGESCHALTET  
FERMÉ  
CERRADO

Chiusura interruttore  
Circuit breaker closing  
Leistungsschalter einschalten  
Fermeture disjoncteur  
Cierre interruptor

Interruttore chiuso, molle scariche  
Circuit breaker closed, springs unloaded  
Leistungsschalter geschlossen, Federn entspannt  
Disjoncteur fermé, ressorts désarmés  
Interruptor cerrado, resortes descargados

BIANCO  
WHITE  
WEISS  
BANC  
BLANC



Inserire unità di test ed eseguire come in figura, premendo i pulsanti 2 e 3 in sequenza.

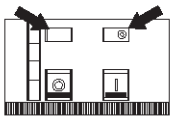
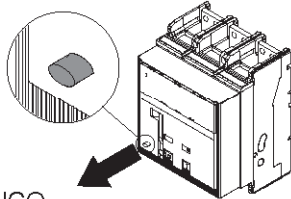
Connect test unit and perform as shown in the figure by pressing keys 2 and 3 in sequence.

Das Prüfgerät einstecken und die Prüfung wie in der Abbildung gezeigt ausführen. Hierzu nacheinander die Tasten 2 und 3 drücken.

Brancher l'unité de test et agir comme indiqué sur la figure, en appuyant sur les boutons 2 et 3 en sequence.

Insertar la unidad de prueba y seguir los pasos que se muestran en la figura, pulsando los botones 2 y 3 en secuencia.

BIANCO  
WHITE  
WEISS  
BANC  
BLANC



APERTO  
OPEN  
AUS-STELLUNG  
OUVERT  
ABIERTO

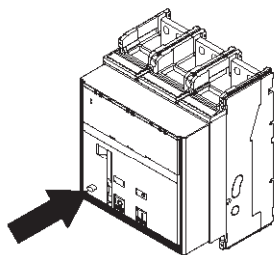
Quando avviene lo sgancio fuoriesce come indicato l'indicazione meccanica di trip.

When tripping takes place, the mechanical trip indicator comes out.

Wenn die Auslösung erfolgt, tritt wie gezeigt die mechanische Auslösungsanzeige aus.

Comme illustré, quand le déclenchement se produit, on a la sortie de l'indicateur mécanique.

Cuando se cumple el desenganche, sale -tal y como se muestra en la indicación mecánica de disparo.



Per ricominciare la sequenza reinserire manualmente l'indicatore.

To restart the sequence, the indicator should be re-introduced by hand.

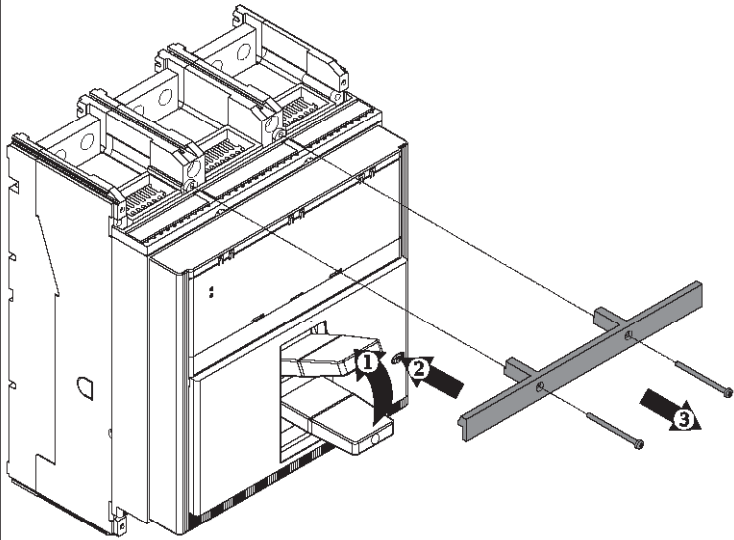
Für den erneuten Beginn der Sequenz die Anzeige von Hand wieder hineindrücken.

Pour recommencer la séquence, enfoncer de nouveau manuellement l'indicateur.

Para reiniciar la secuencia, reinsertar manualmente el indicador.

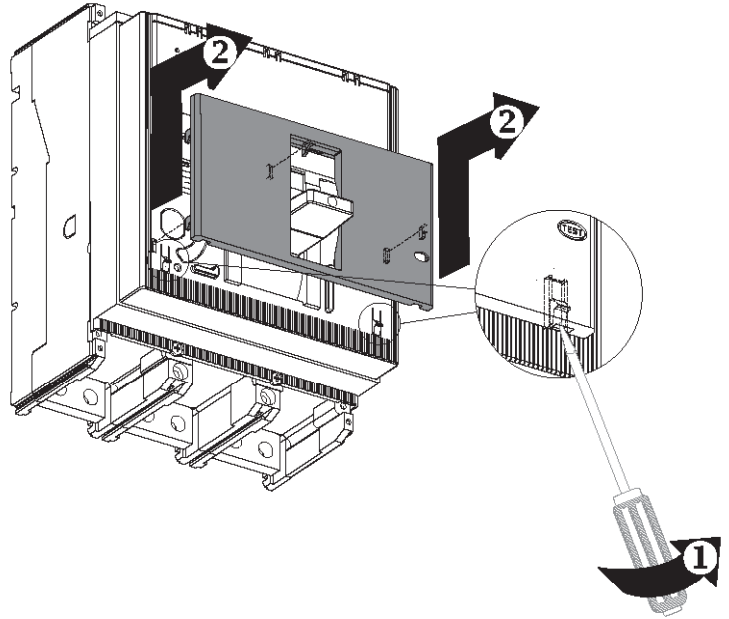
10

T7



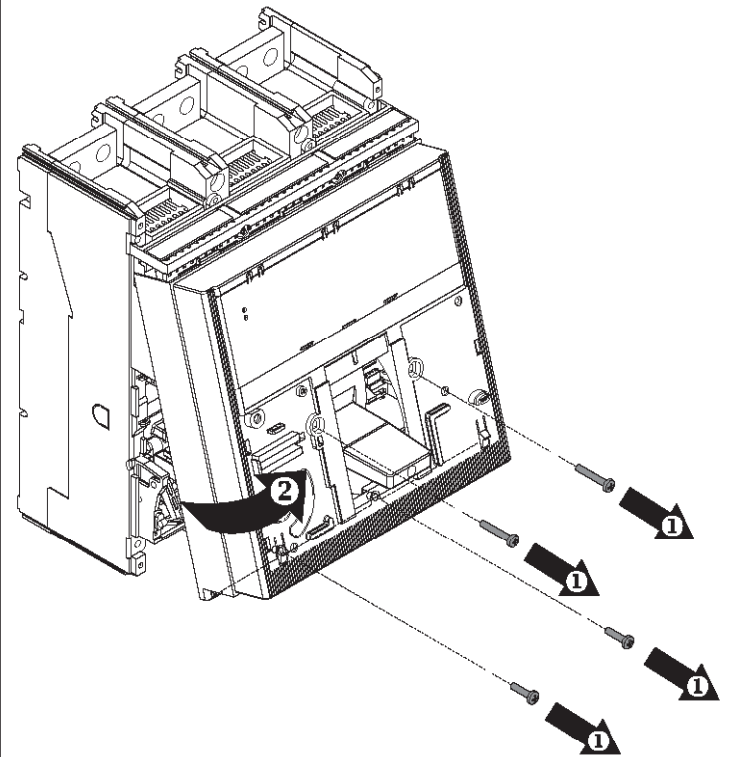
11

T7



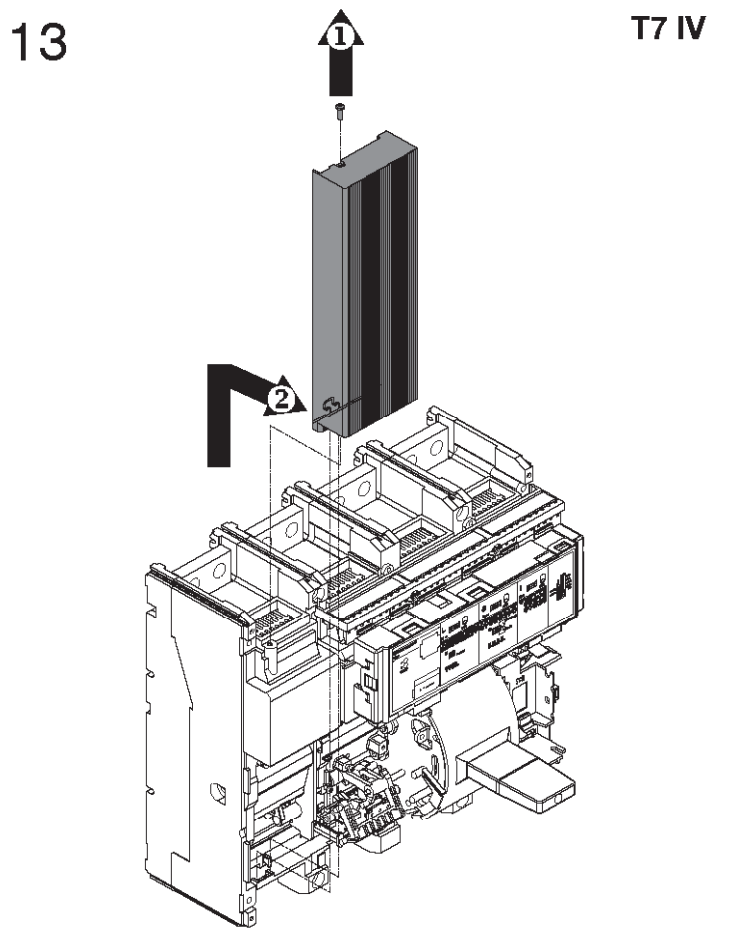
12

T7



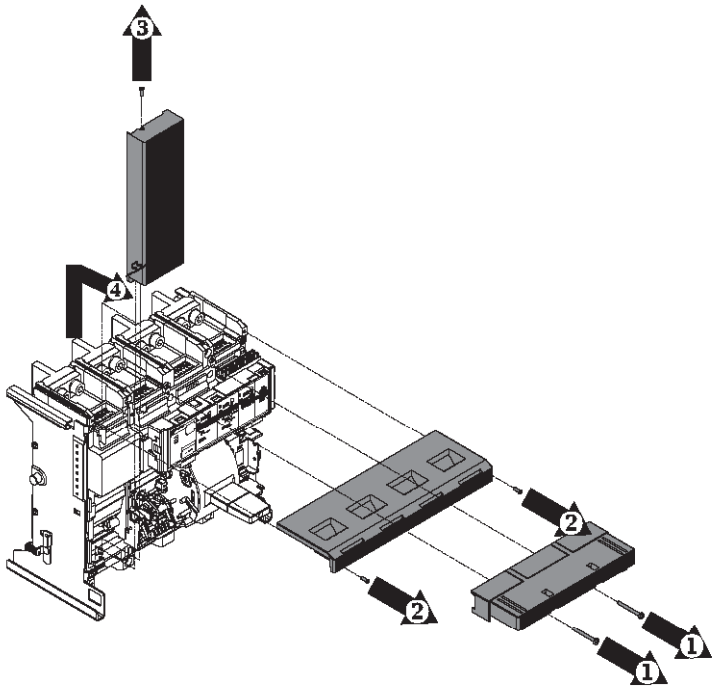
13

T7 IV



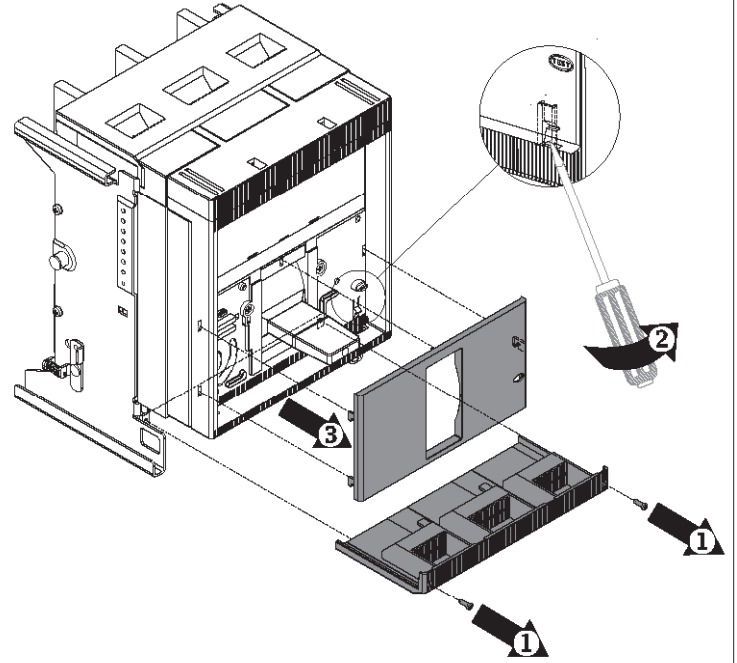
14

T7IV/W



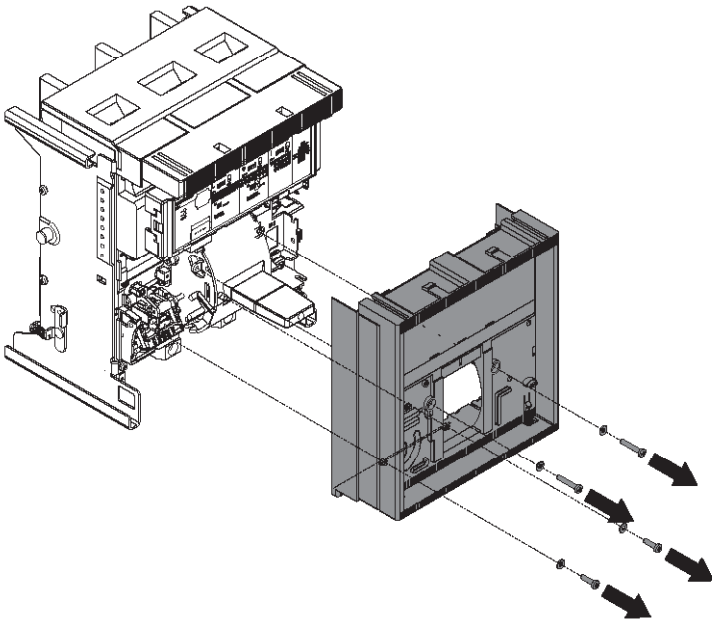
15

T7/W



16

T7/W

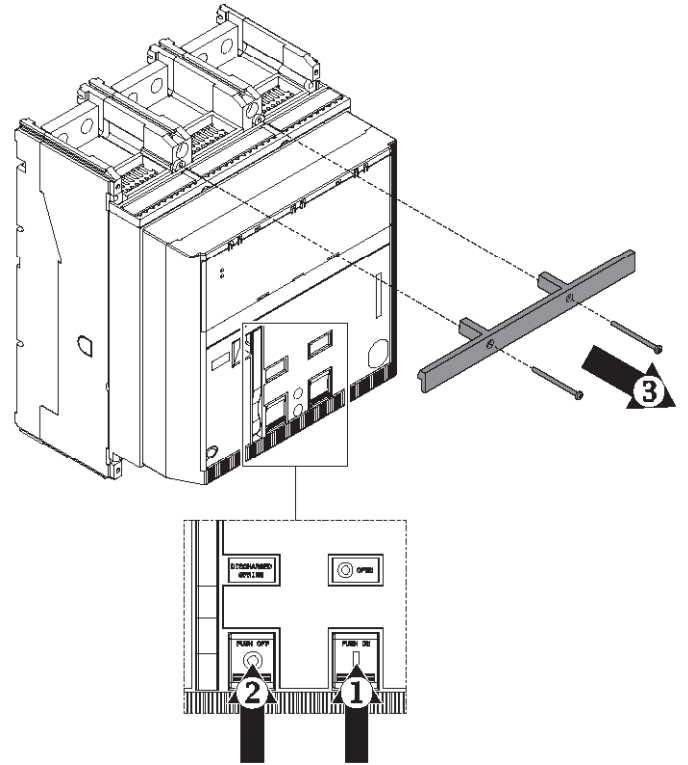


17-22

Disassembly sequence to install internal accessories T7M

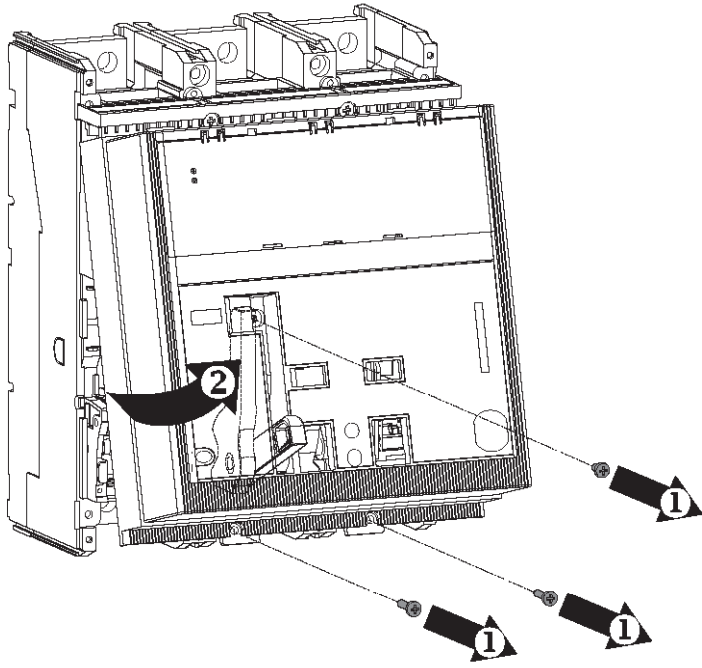
17

T7M



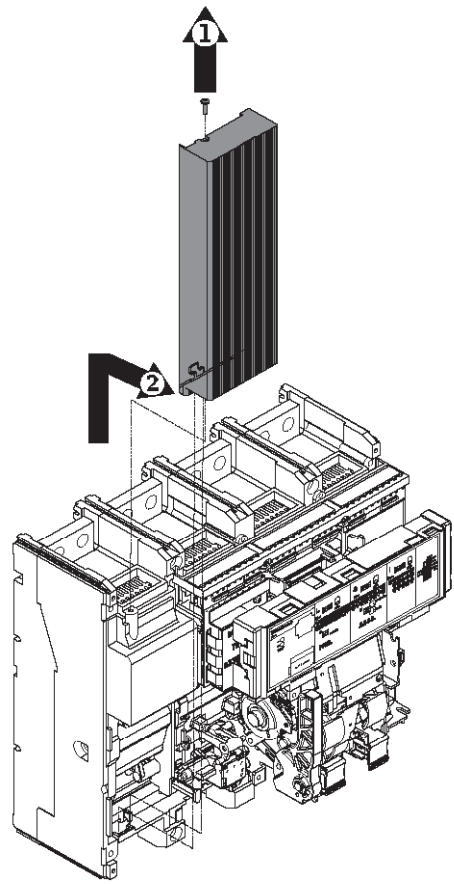
18

T7M



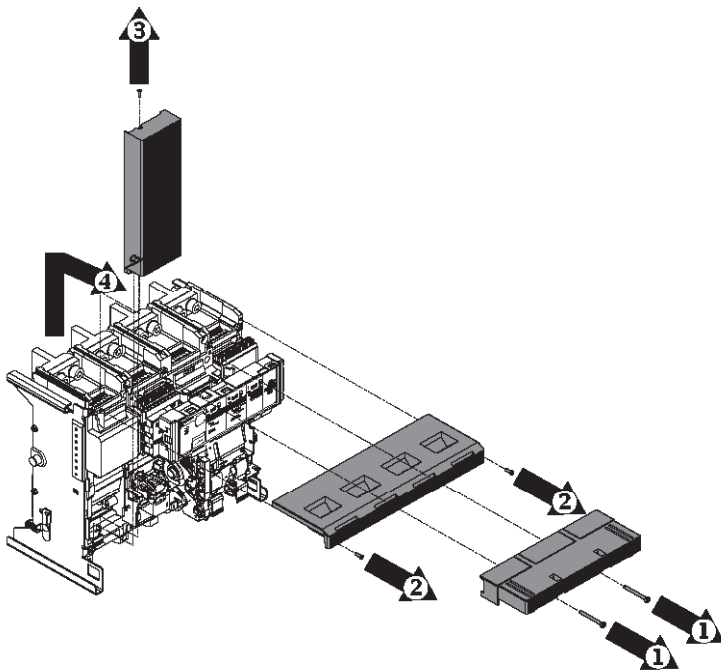
19

T7M IV



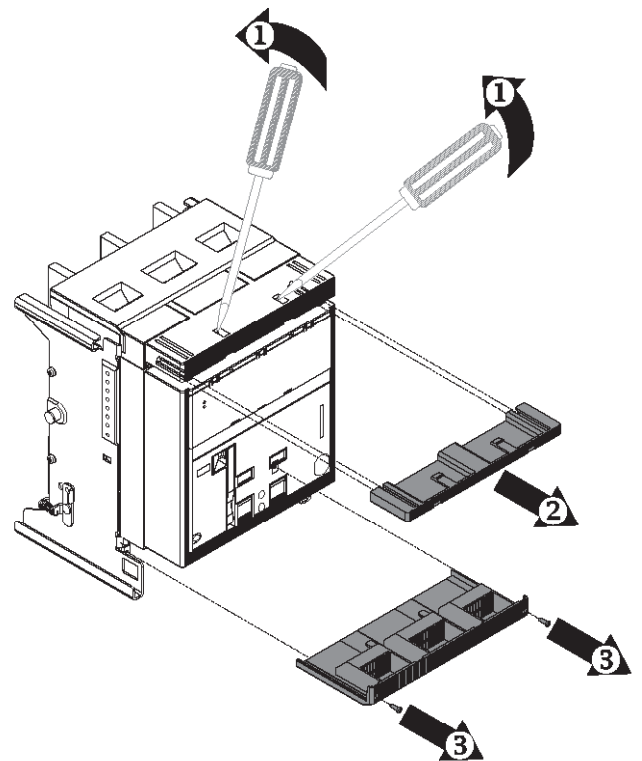
20

T7MIV/W



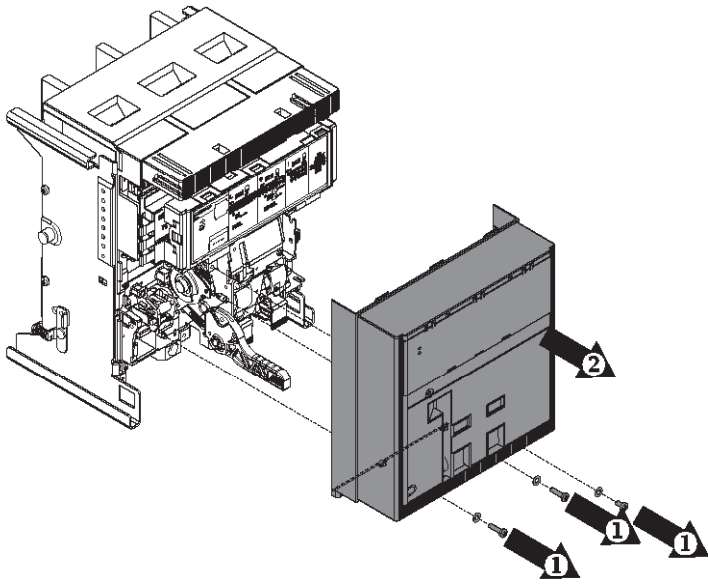
21

T7M/W



22

T7/W



23-30

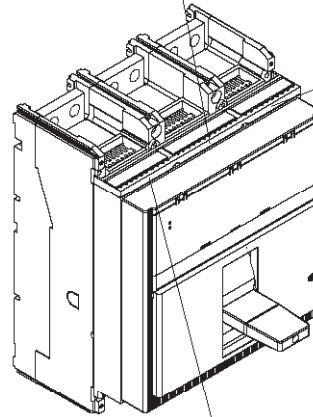
Connection to auxiliary circuits

23

T7

D1	C1	C13	C12	42	11	12	22	31	32
D2	C2	C3	C11	44	41	14	24	21	34

T9	T7	T6	W4	98S	W2	K15	K13	K21	K2	T3	T4
T10	T8	T5	W3	95S	W1	K14	K12	K11	K1	T2	T1



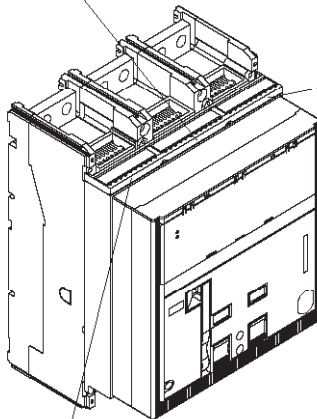
77	67	57	98						
78	68	58	95	96					

24

T7M

D1	C1	C13	C12	42	11	12	22	31	32
D2	C2	C3	C11	44	41	14	24	21	34

T9	T7	T6	W4	98S	W2	K15	K13	K21	K2	T3	T4
T10	T8	T5	W3	95S	W1	K14	K12	K11	K1	T2	T1



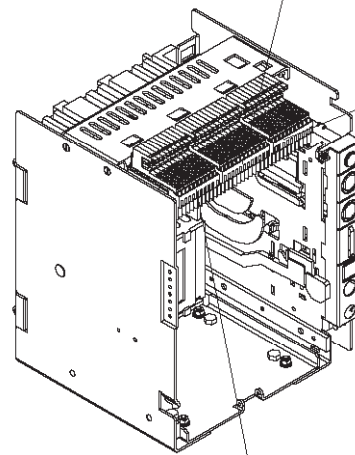
U1	38		98		R1	48			
U2	36	35	95	96	R2	46	45		

25

T7-T7M/W

D1	C1	C13	C12	42	11	12	22	31	32
D2	C2	C3	C11	44	41	14	24	21	34

T9	T7	T6	W4	98S	W2	K15	K13	K21	K2	T3	T4
T10	T8	T5	W3	95S	W1	K14	K12	K11	K1	T2	T1



U1	38		98		R1	48			
U2	36	35	95	96	R2	46	45		

T7M

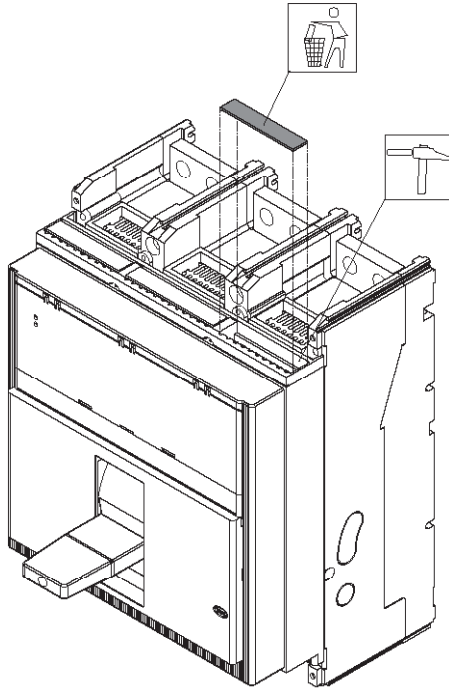
77	67	57	98						
78	68	58	95	96					

T7

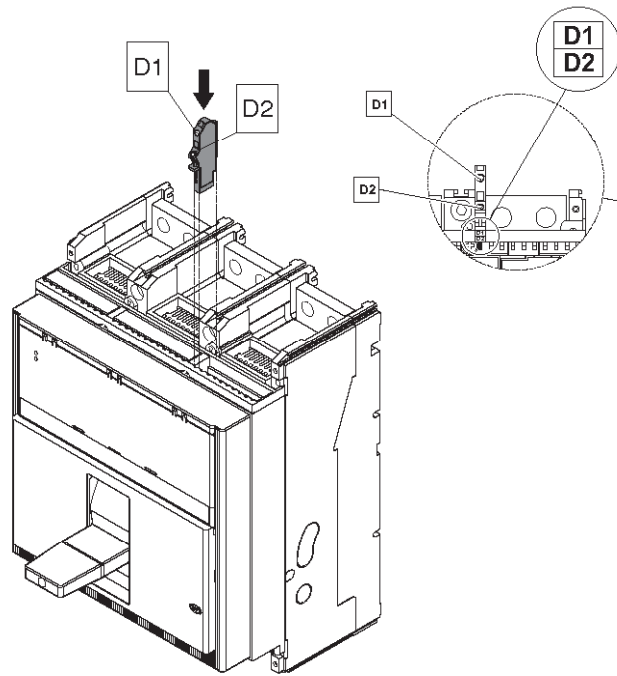


26

T7-T7M

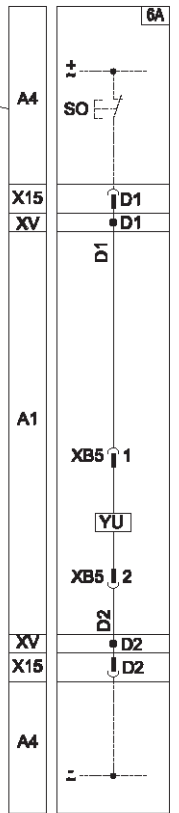


27



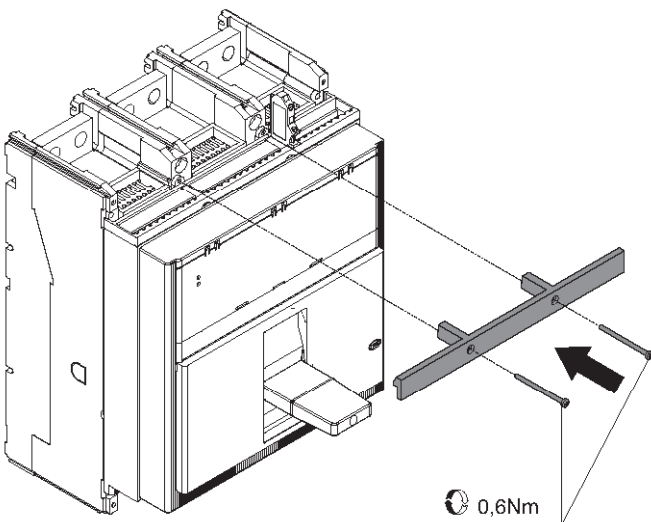
Esempio di cablaggio per interruttore fisso  
 Wiring example for fixed circuit breaker  
 Verdrahtungsbeispiel für festen Leistungsschalter  
 Exemple de câblage pour disjoncteur fixe  
 Ejemplo de cableado para interruptor fijo

T7-T7M

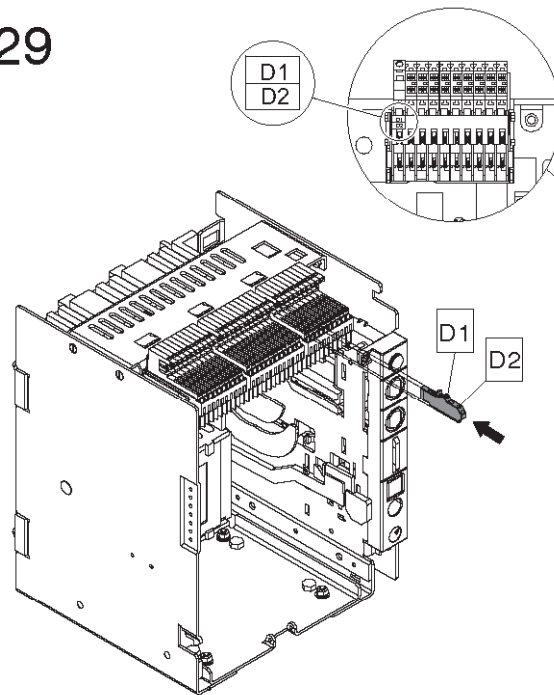


28

T7-T7M

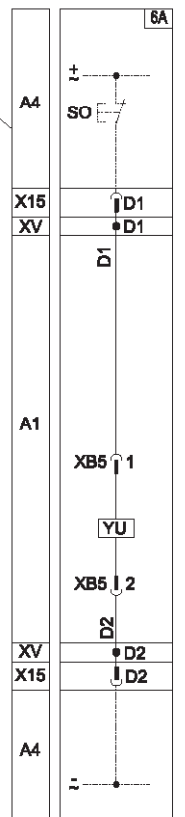


29

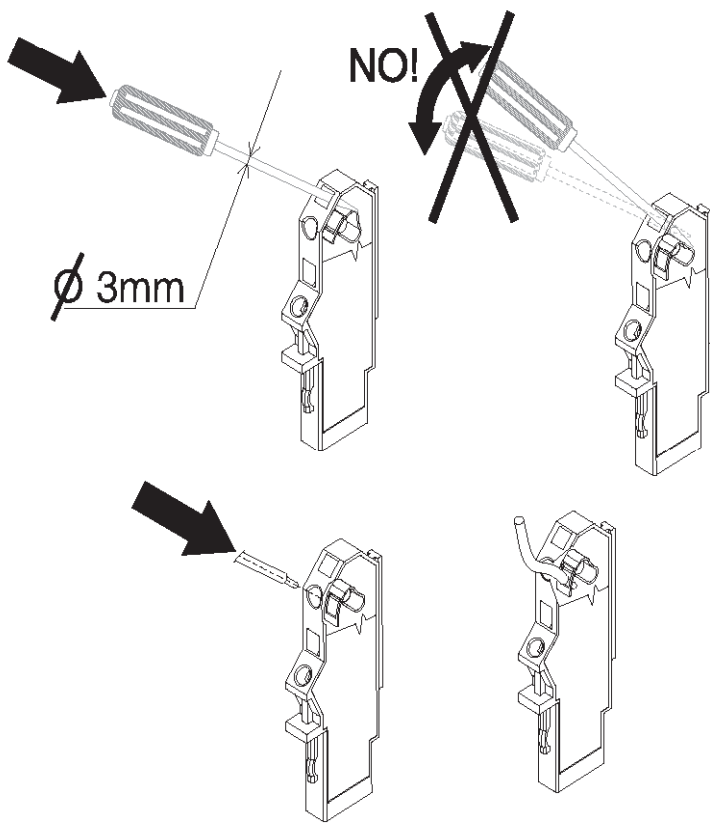


Esempio di cablaggio per parte fissa  
 Wiring example for fixed part  
 Verdrahtungsbeispiel für Unterteil  
 Exemple de câblage pour partie fixe  
 Ejemplo de cableado para parte fija

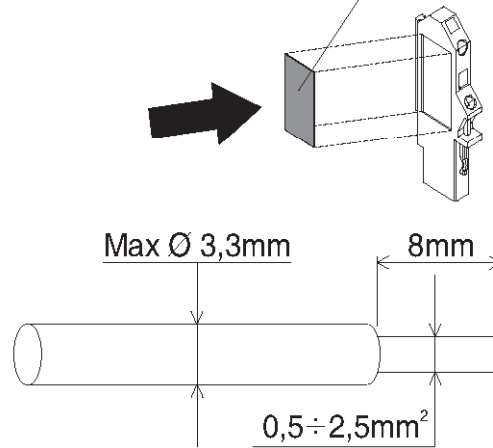
T7-T7M/W



30



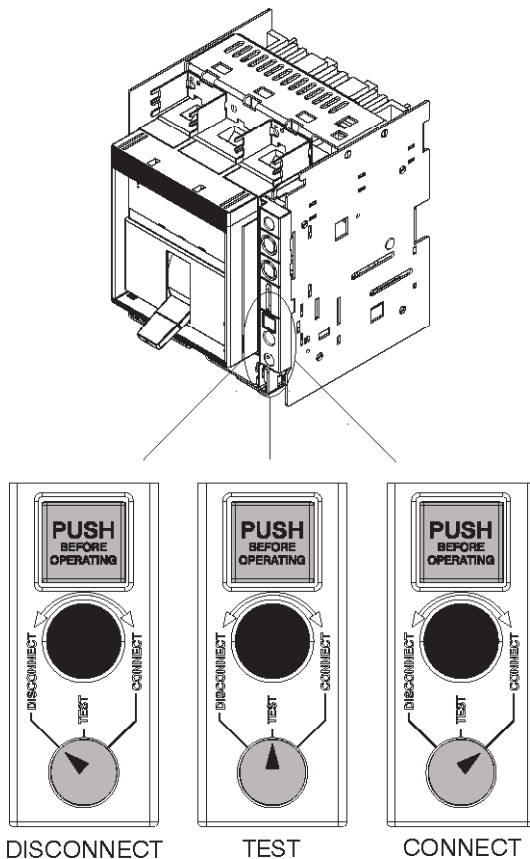
OPZIONALE - DATI DEI CABLAGGI RIPORTABILI A CURA DEL CLIENTE  
 OPTIONAL - WIRING DATA TO BE GIVEN BY CUSTOMER  
 OPTIONAL - DIE DATEN DER VERDRÄHTUNG KÖNNEN VOM KUNDEN VERMERKT WERDEN.  
 OPTION - INDICATION DES DONNÉES DES CÂBLAGES À LA CHARGE DU CLIENT  
 OPCIONAL - DATOS DE LOS CABLEADOS REALIZABLES POR CUENTA DEL CLIENTE



31÷42

Connection and disconnection of withdrawable-type CBs

31



L'interruttore si può manovrare soltanto se il pulsante "PUSH BEFORE OPERATE" non è premuto, e cioè soltanto quando l'interruttore è in una di queste tre posizioni.

The circuit breaker can operate only when the "PUSH BEFORE OPERATE" button is not pressed, i.e. only when the CB is set to one of the following three positions.

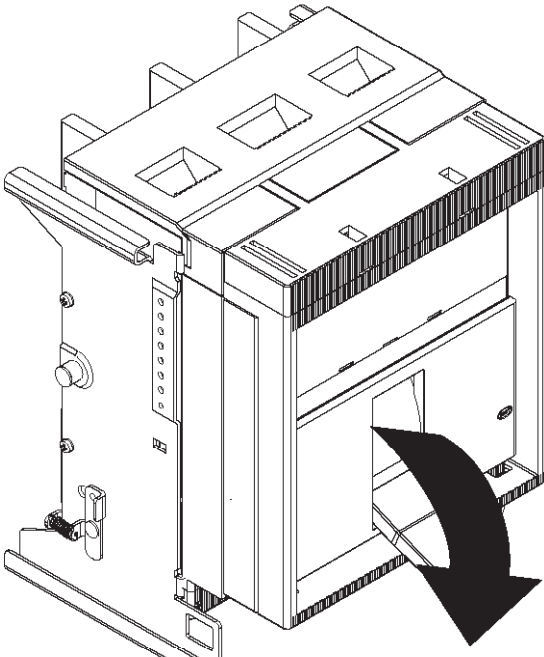
Das Schalten des Leistungsschalters ist nur dann möglich, wenn die Taste "PUSH BEFORE OPERATE" nicht gedrückt ist, d.h. wenn sich der Leistungsschalter in einer dieser drei Stellungen befindet.

Le disjoncteur ne peut être manœuvré que si le bouton "PUSH BEFORE OPERATE" n'est pas enfoncé, c'est-à-dire uniquement quand le disjoncteur est dans l'une de ces trois positions.

El interruptor puede manipularse sólo si el botón "PUSH BEFORE OPERATE" no ha sido pulsado; es decir, sólo cuando el interruptor se encuentra en una de las siguientes tres posiciones.

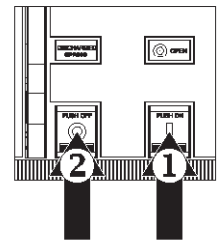
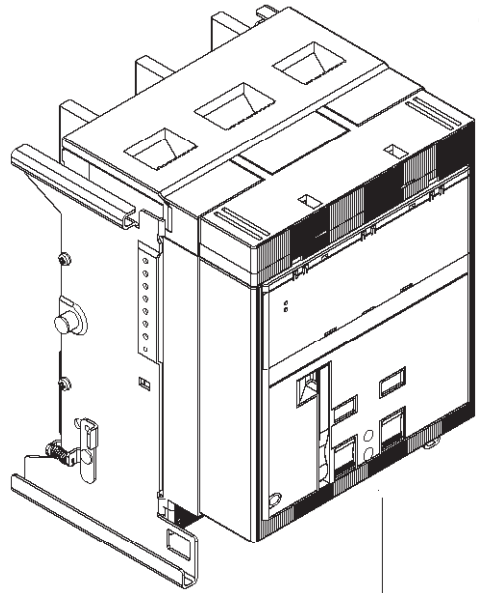
32

T7/W



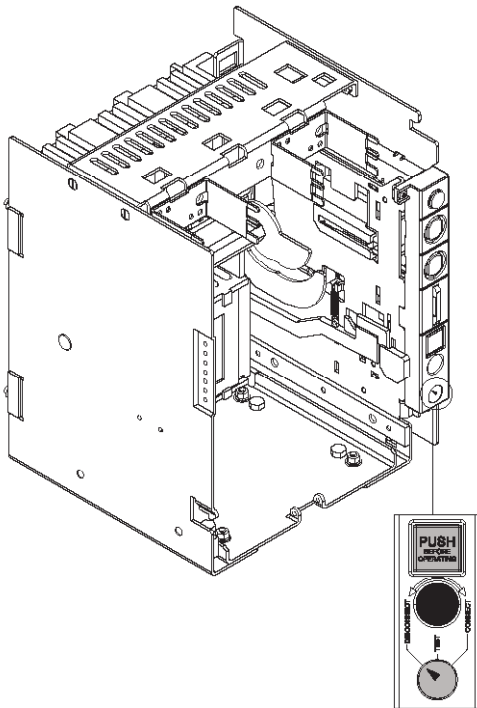
33

T7M/W

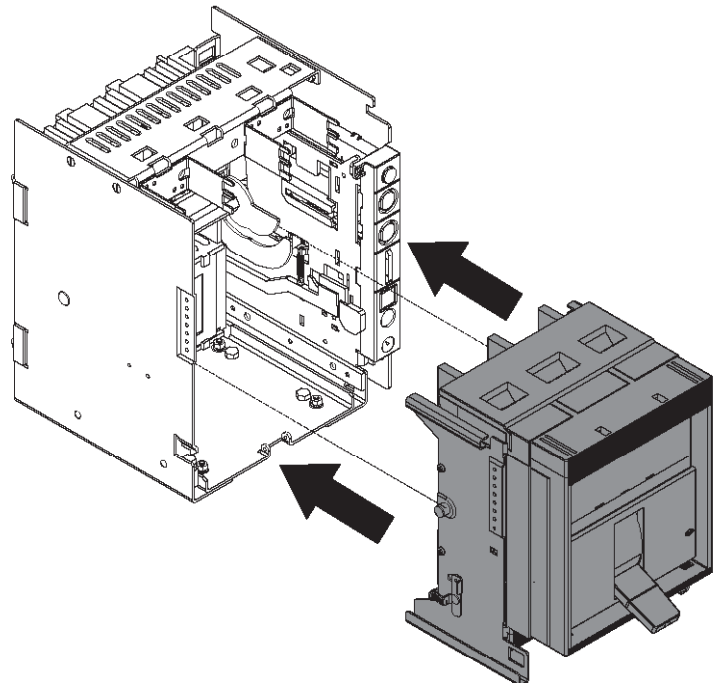


34

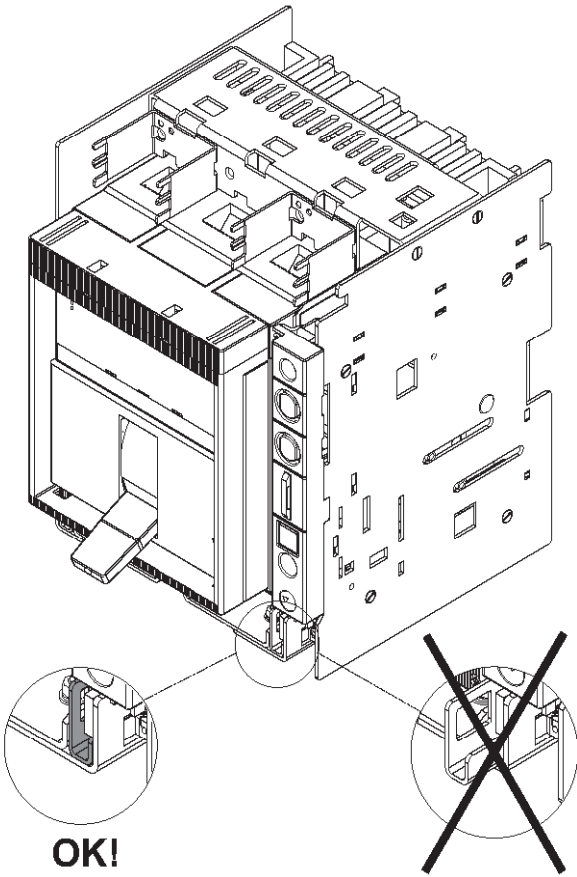
Posizione di partenza (estratto)  
 Starting position (disconnected)  
 Ausgangsstellung (Trennstellung)  
 Position de départ (débroché)  
 Posición de salida (extraído)



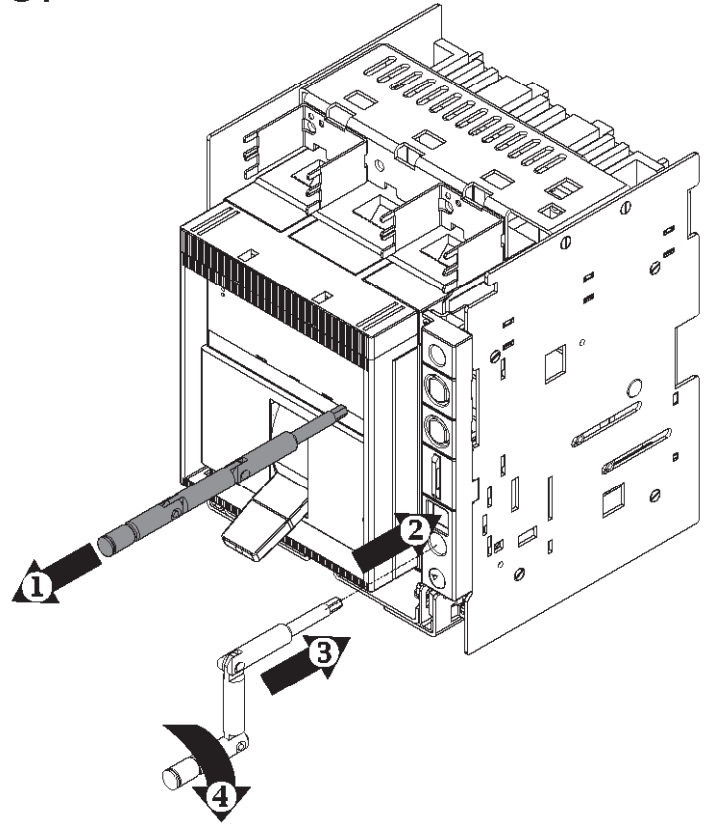
35



36

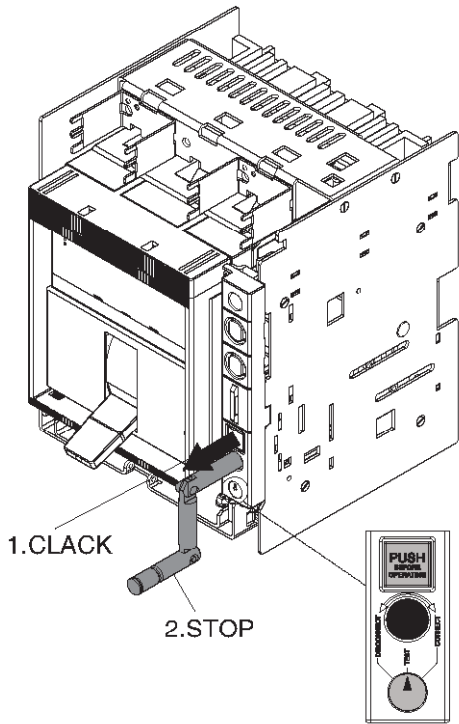


37

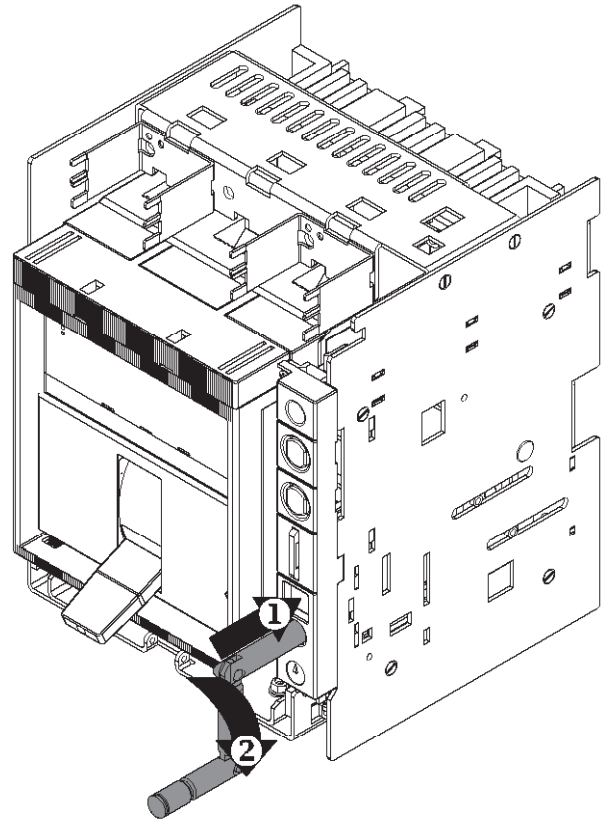


38

Posizione test  
 Test position  
 Prüfstellung  
 Position de test  
 Posición de prueba

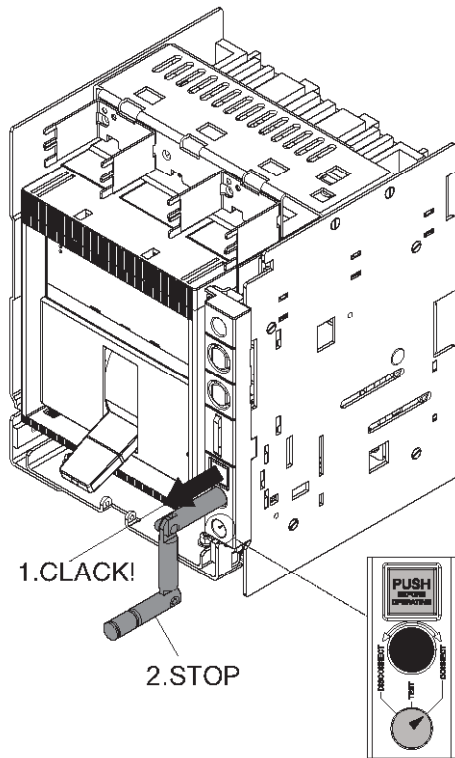


39

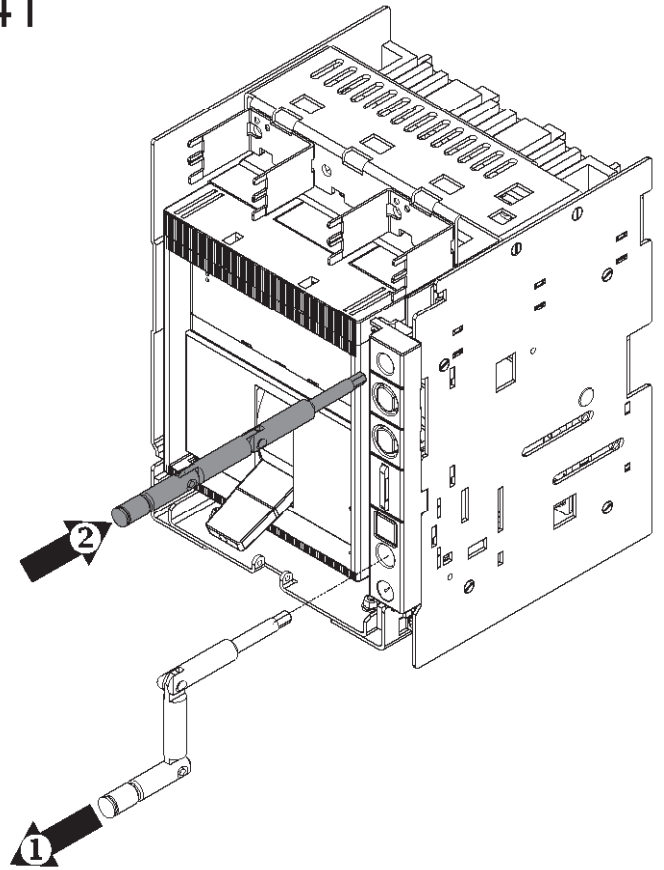


40

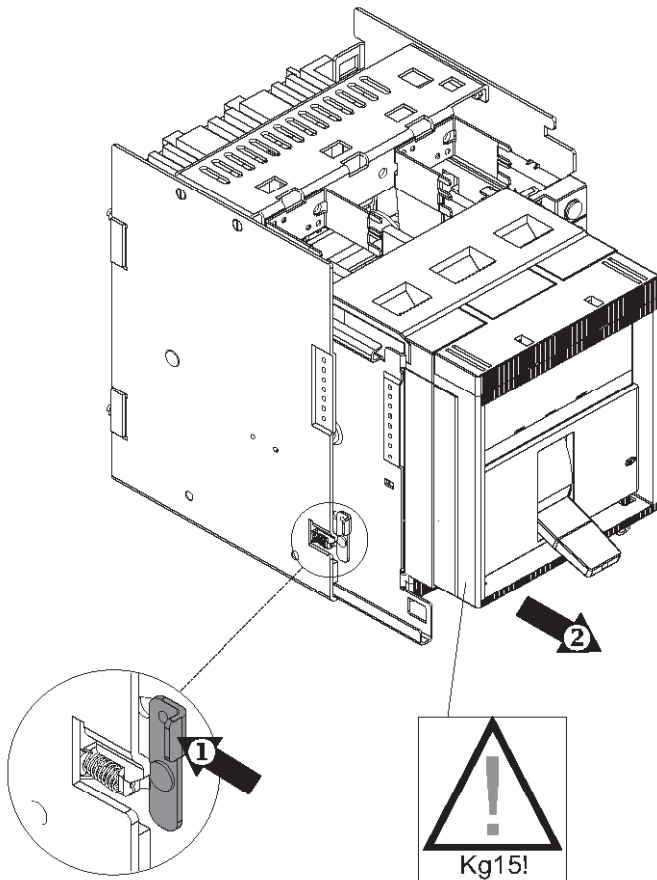
Posizione di inserito  
 Connected  
 Betriebsstellung  
 Position embroché  
 Posición de insertado



41



42



Perestrarre la parte mobile dalla parte fissa ripercorrere le operazioni descritte nelle fig. 37-41 in senso inverso. Al termine effettuare le due operazioni illustrate nella figura a lato.

To remove the moving part from fixed part, repeat the operations described in figures 37 to 41 in reverse order. When accomplished, perform the two operations shown in the figure.

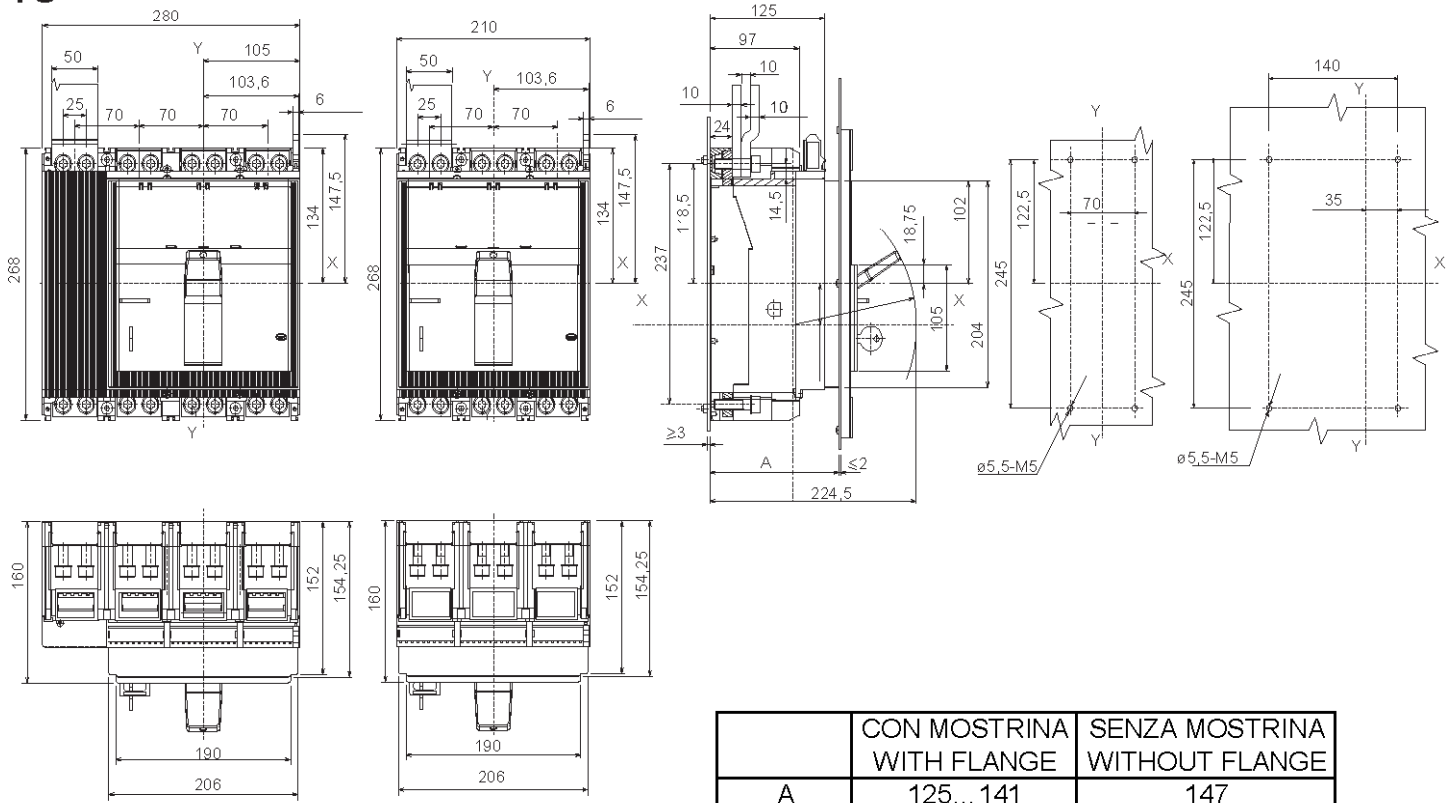
Zum Herausnehmen des beweglichen Teils aus dem Unterteil die in den Abb. 37 - 41 gezeigten Vorgänge in der umgekehrten Reihenfolge ausführen. Zum Schluss die zwei in der nebenstehenden Abbildung gezeigten Vorgänge ausführen.

Pour débrocher la partie mobile de la partie fixe, refaire à l'inverse les opérations décrites sur les fig. 37 - 41. Pour finir, effectuer les deux opérations illustrées sur la figure ci-contre.

Para extraer la parte móvil de la parte fija, repetir -en sentido inverso- las operaciones que han sido descritas en las figs. 37-41. Al terminar, realizar las dos operaciones que se muestran en la figura puesta a un lado.

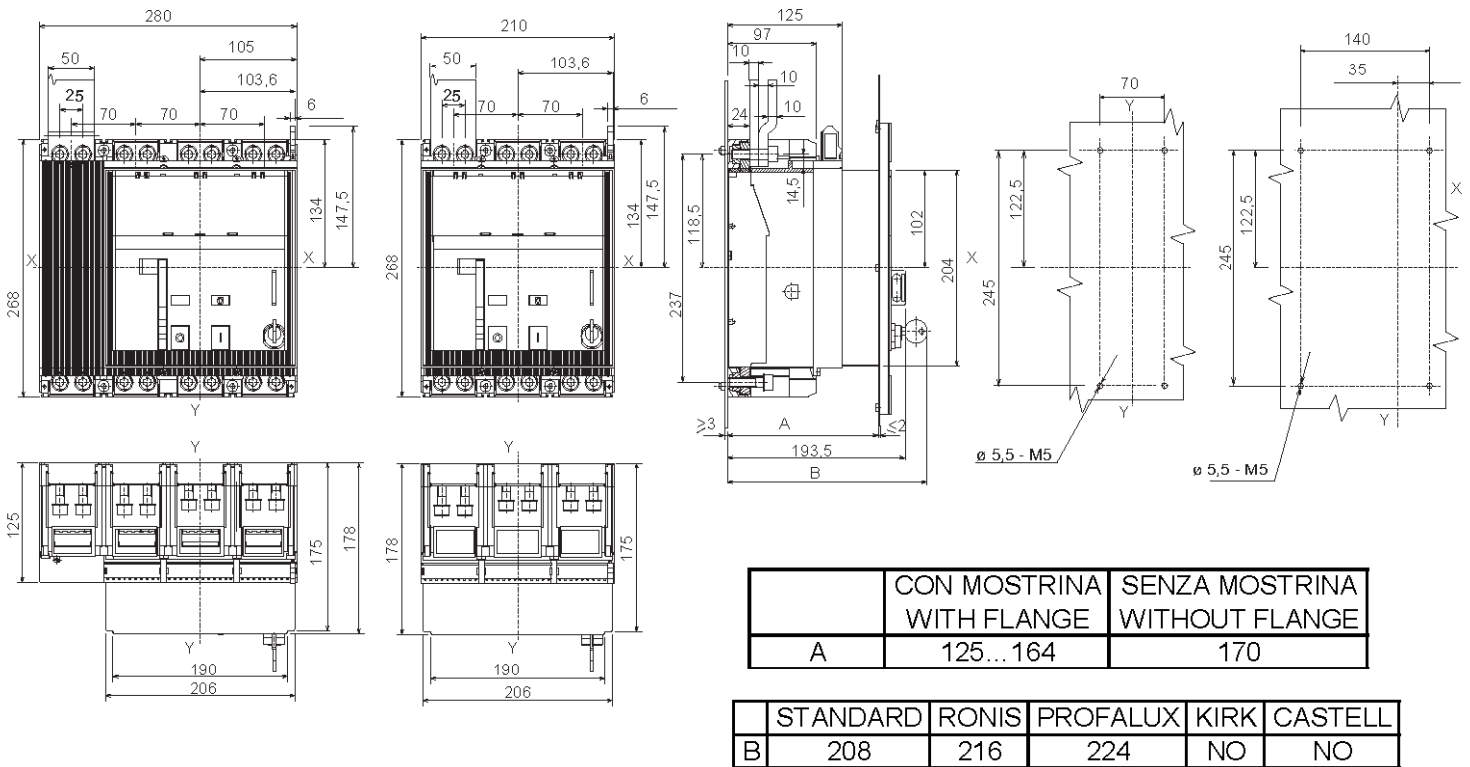
43

F-F



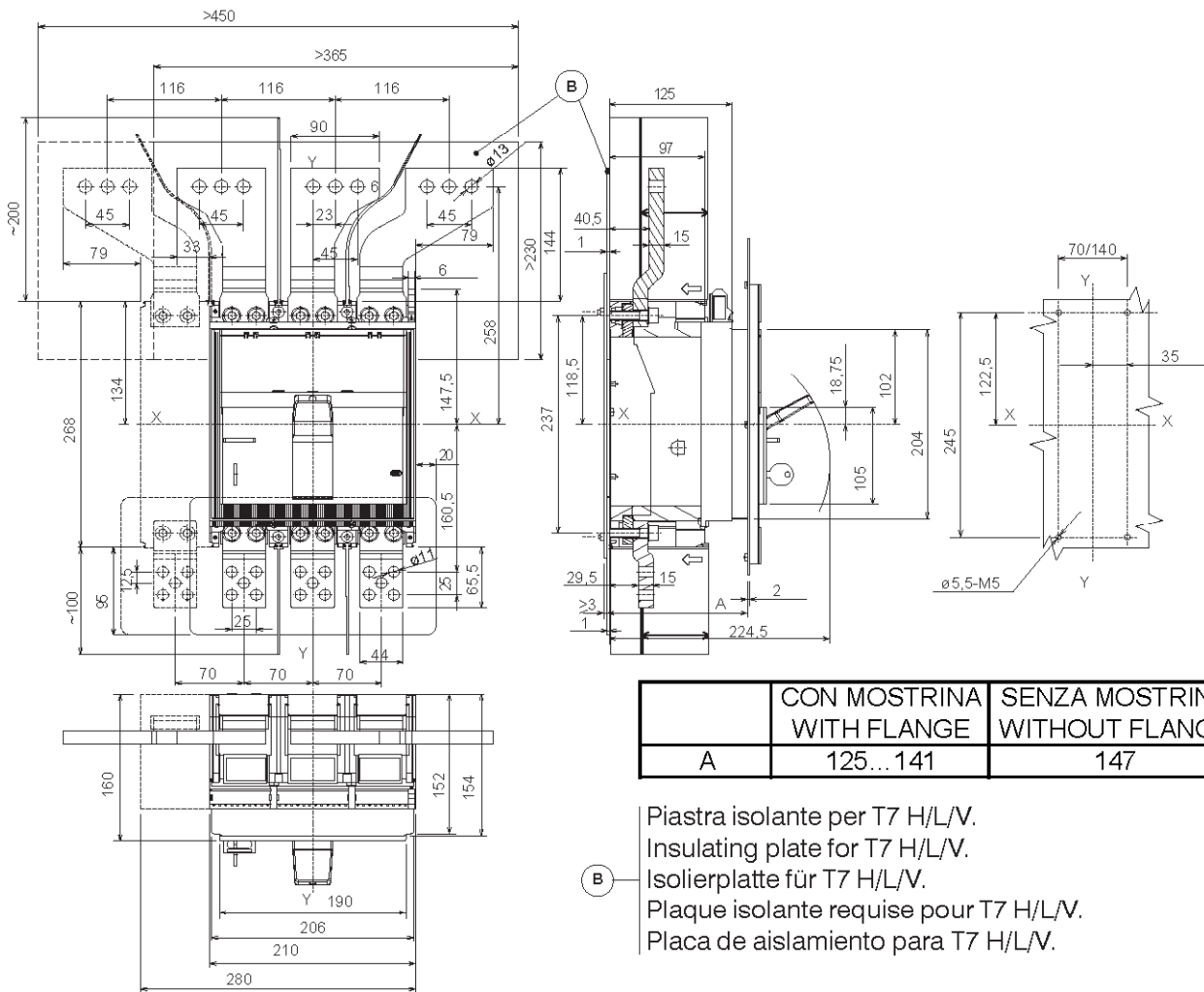
44

F-F



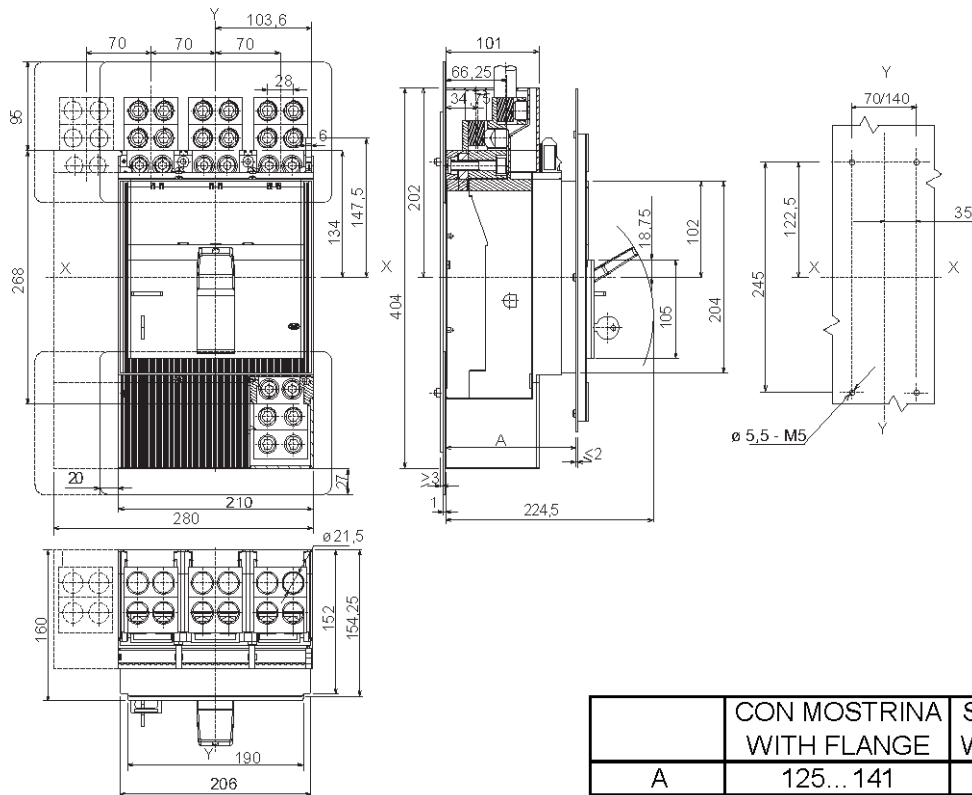
45

F-ES/EF

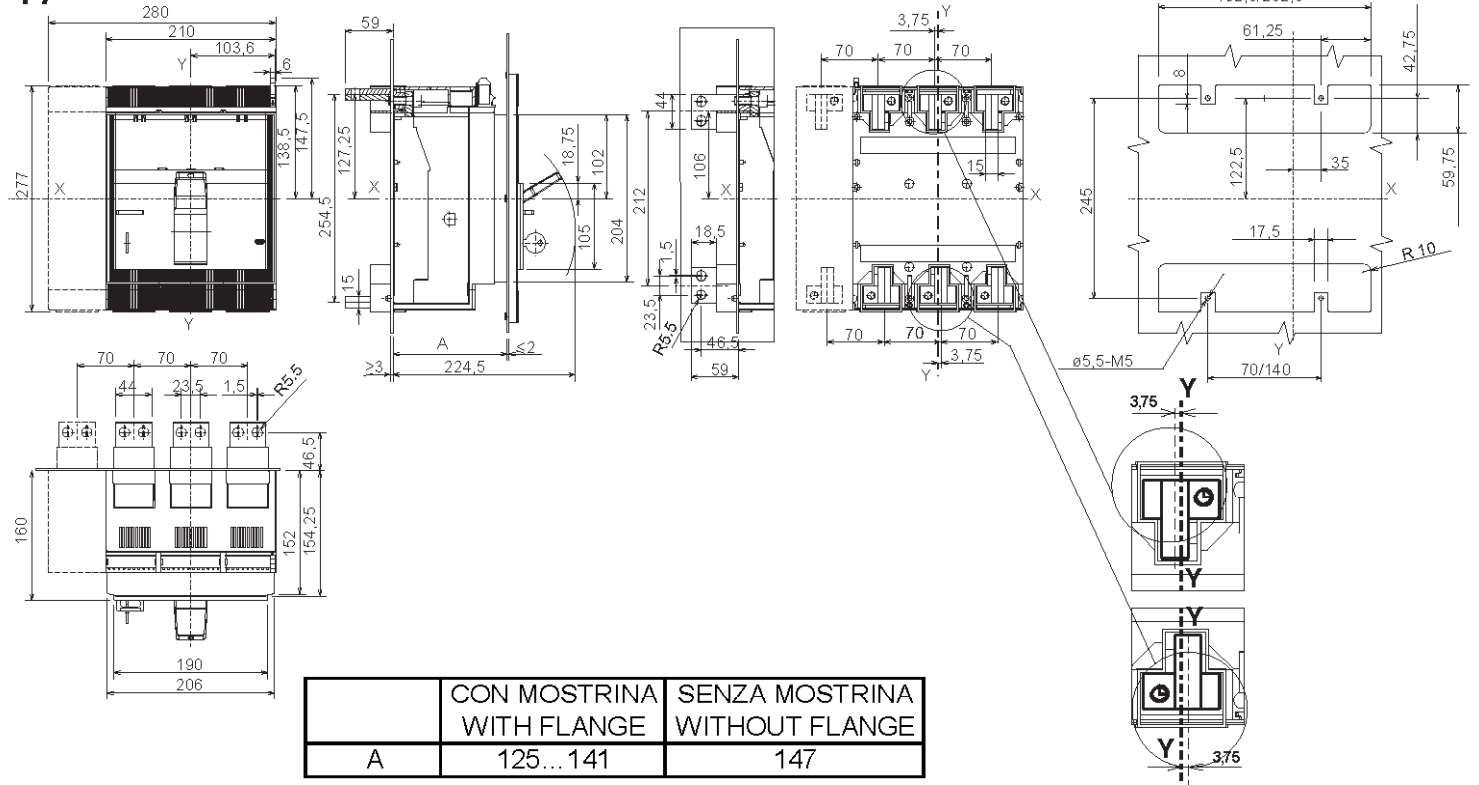


46

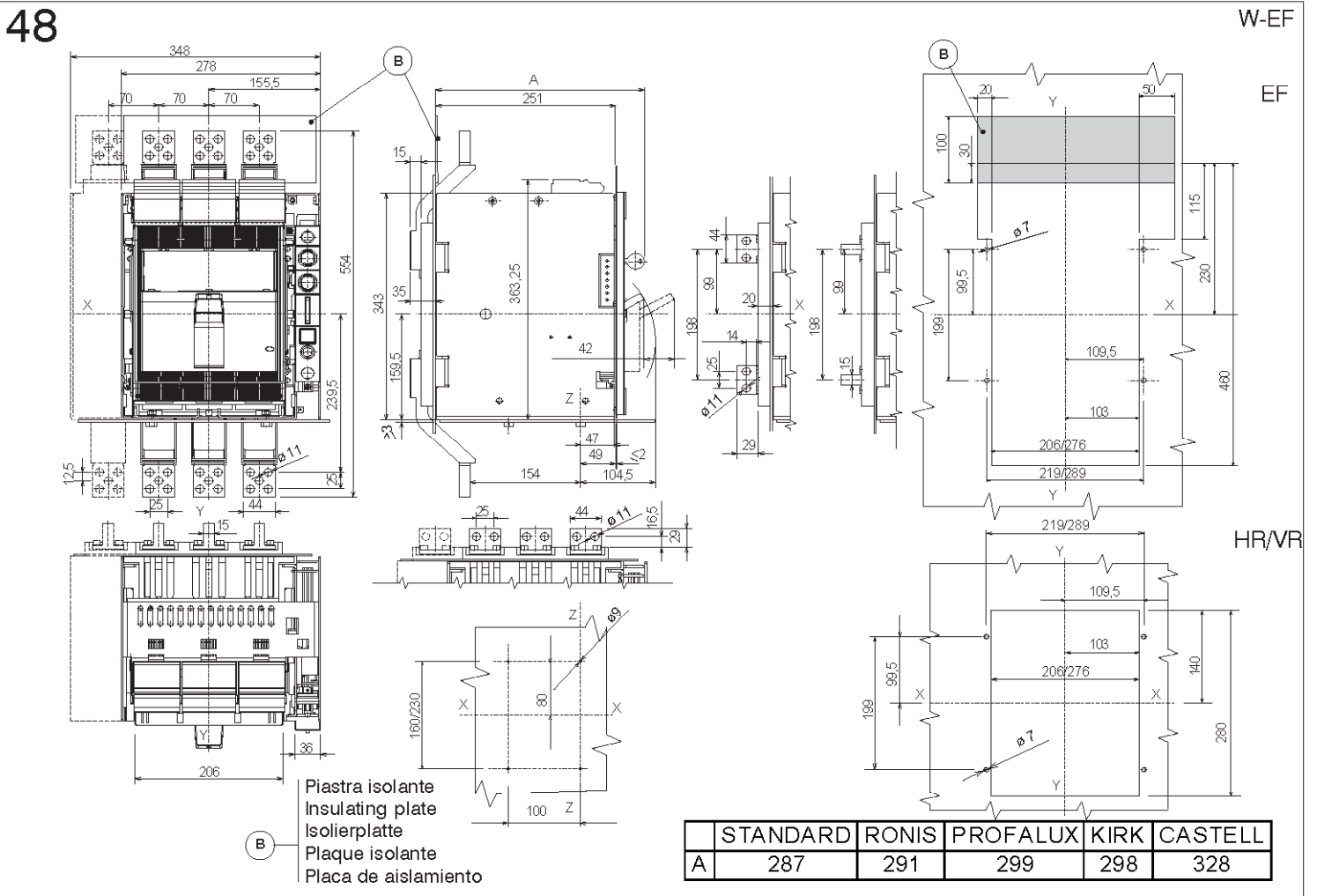
F-FcCuAl  
4x240



47

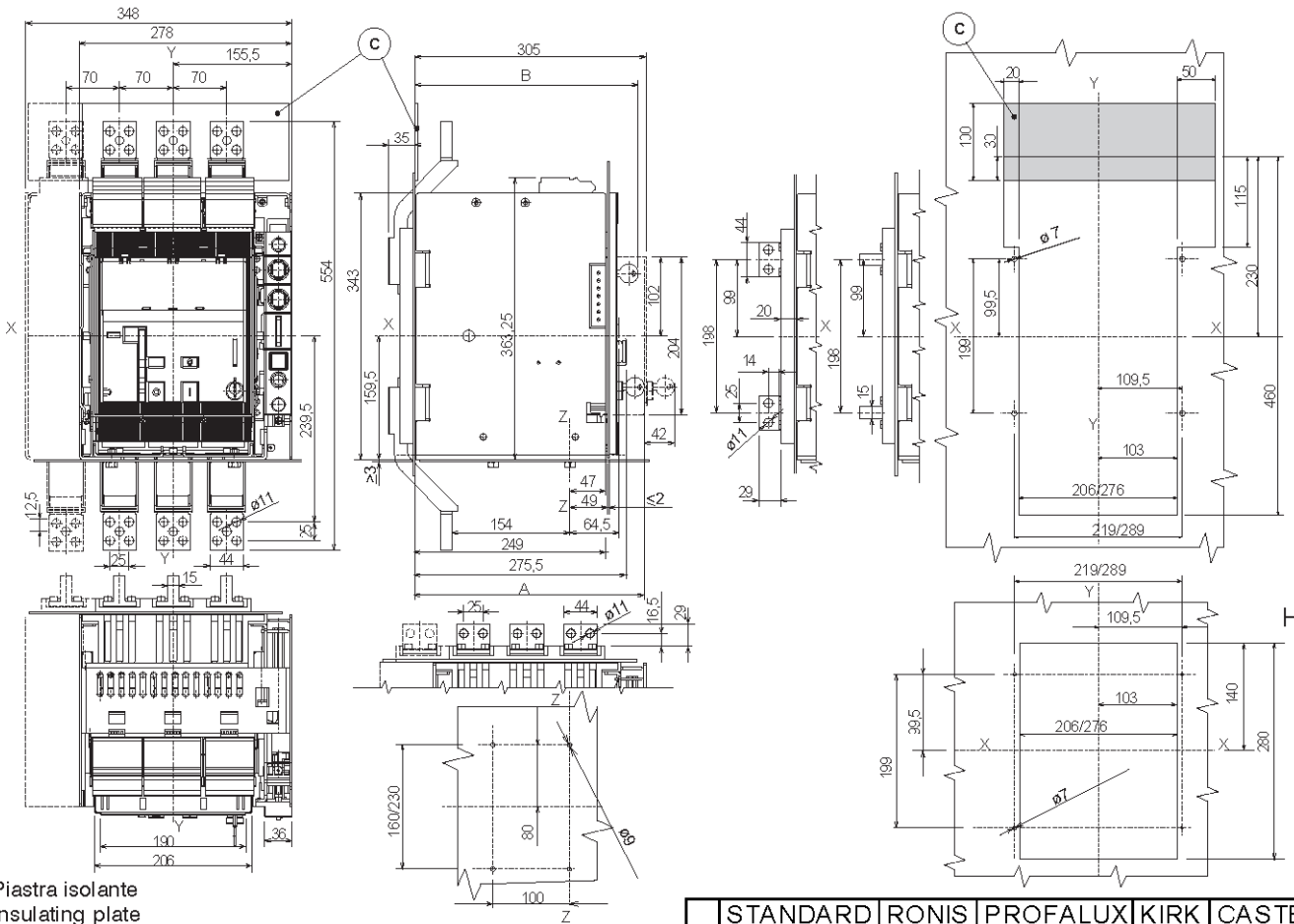


48





49



W-EF

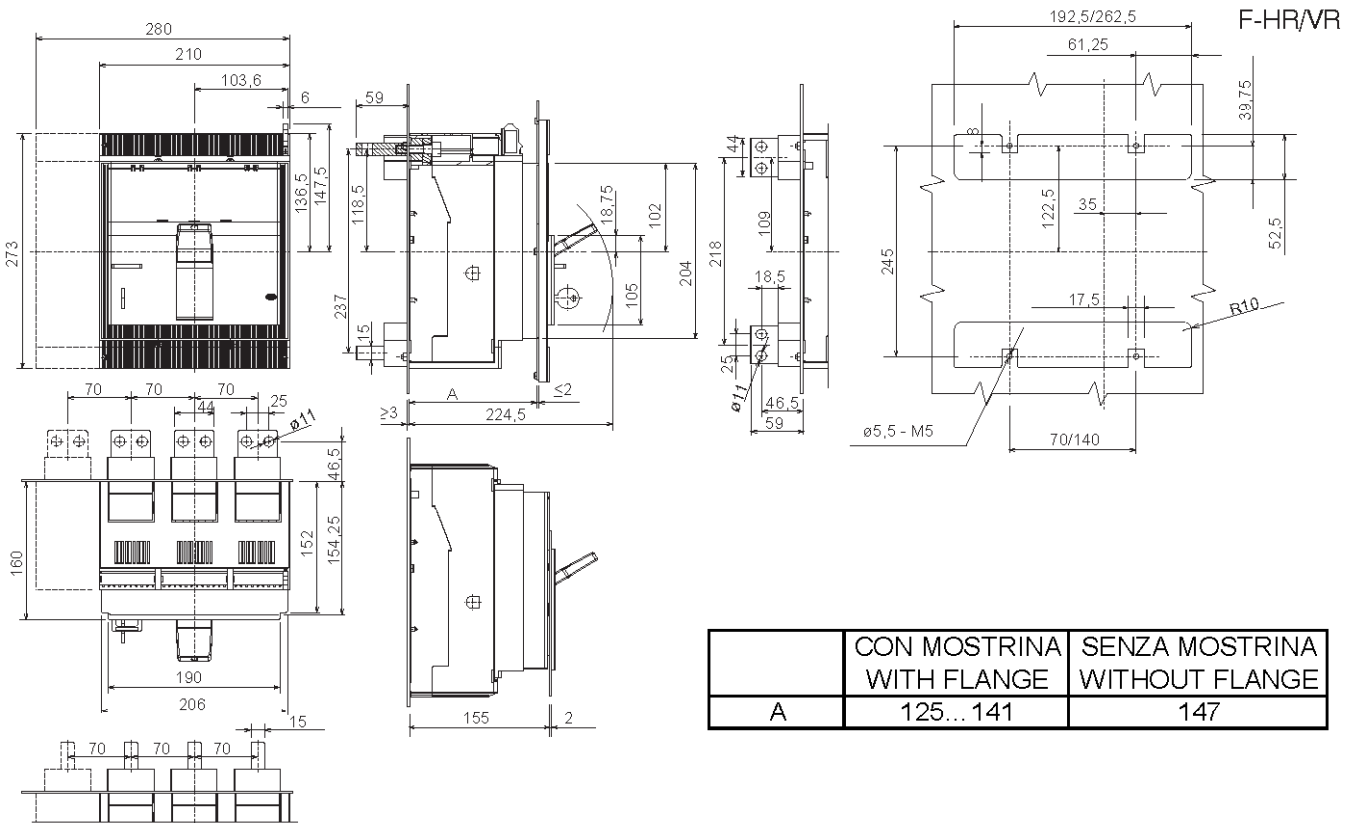
EF

HR/VR

(c) Piastra isolante  
 Insulating plate  
 Isolierplatte  
 Plaque isolante  
 Placa de aislamiento

	STANDARD	RONIS	PROFALUX	KIRK	CASTELL
A	290	298	306	NO	NO
B	307	311	319	318	348

50



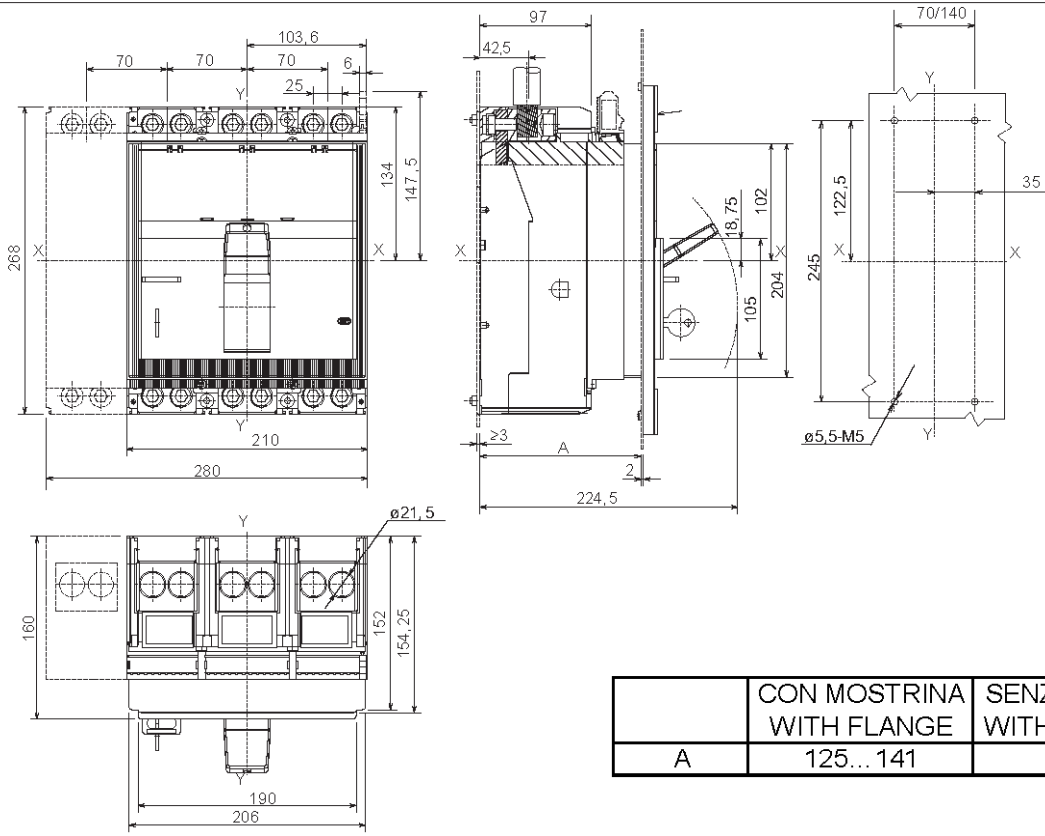
F-HR/VR

	CON MOSTRINA WITH FLANGE	SENZA MOSTRINA WITHOUT FLANGE
A	125... 141	147



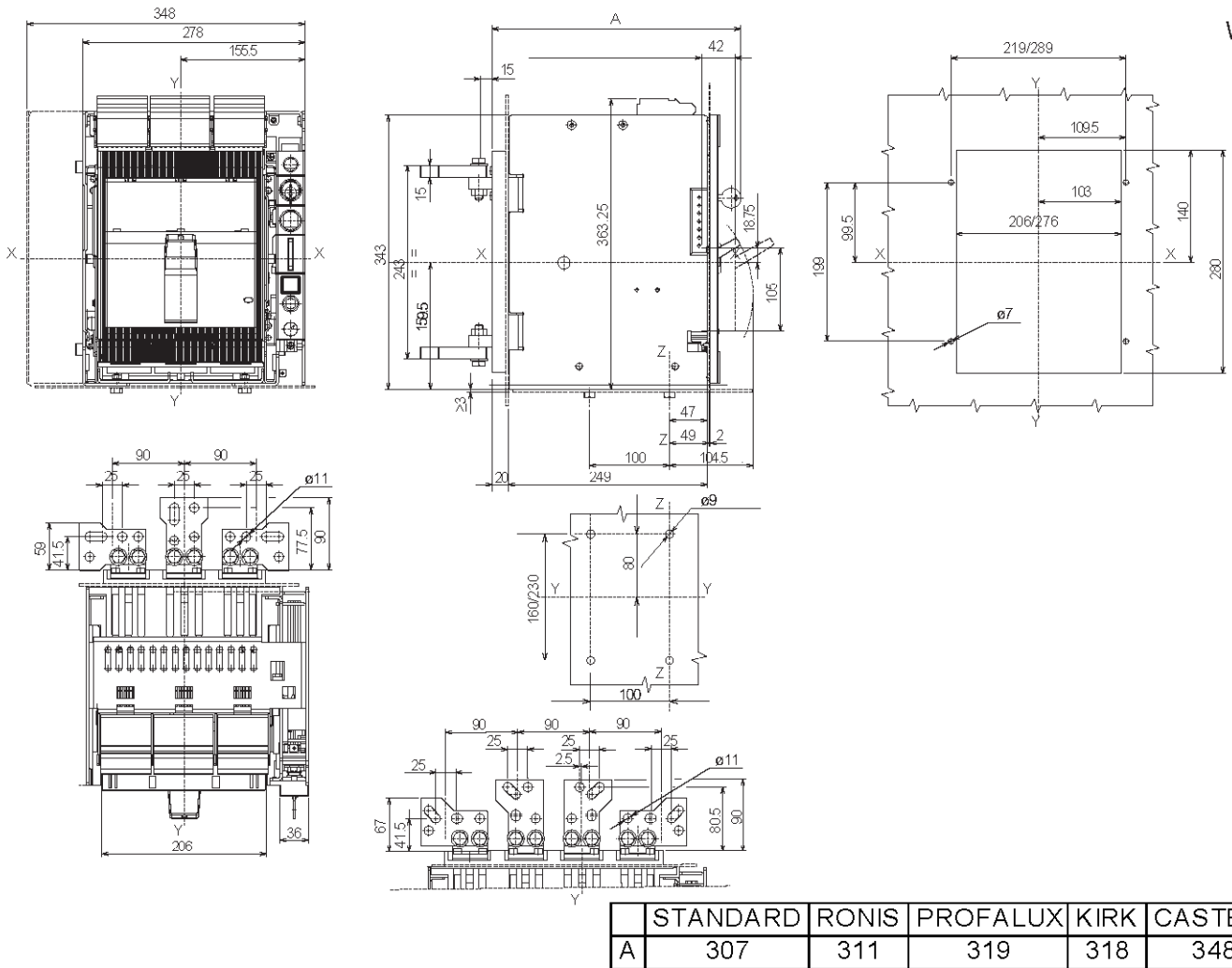
51

F-FCCuAl  
2x240

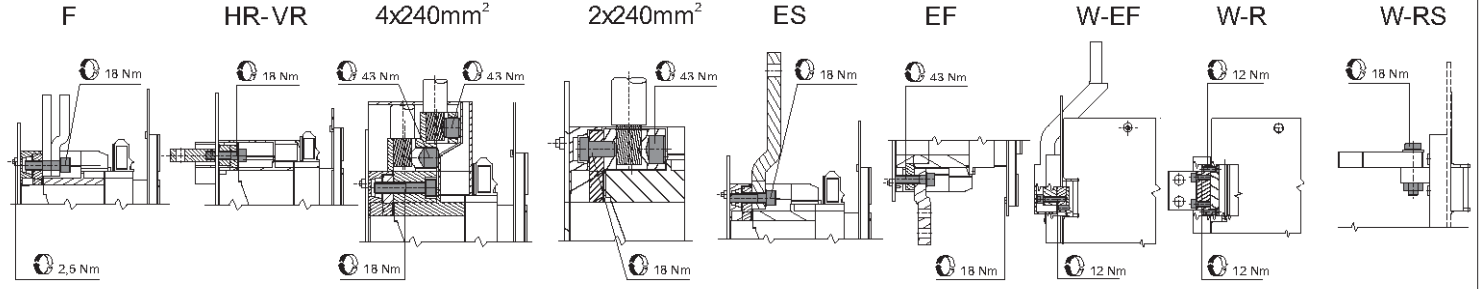


52

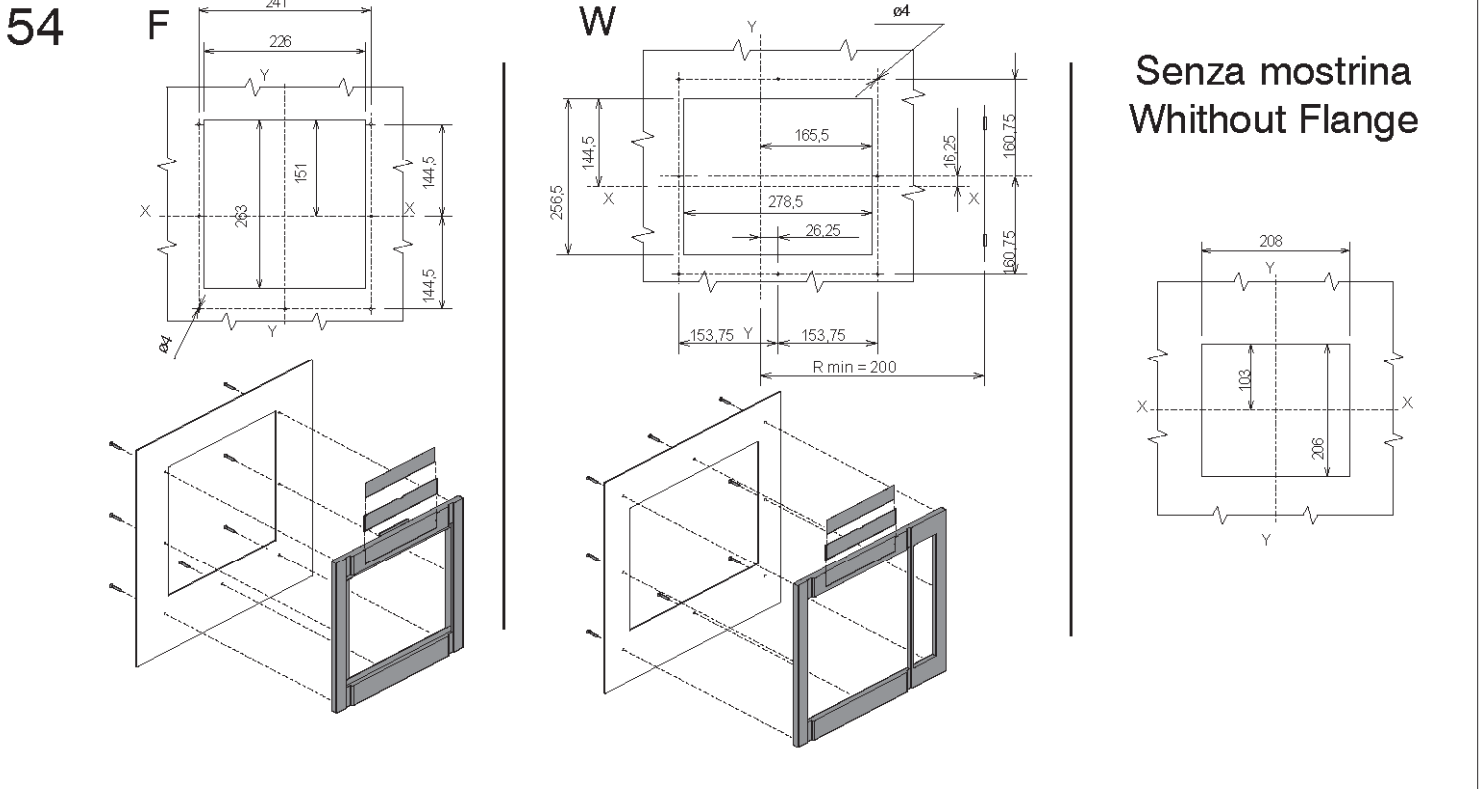
W-RS



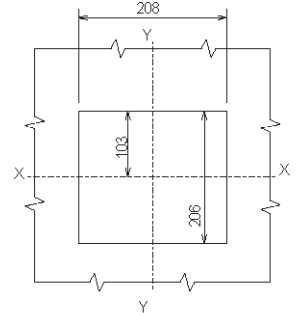
53



54

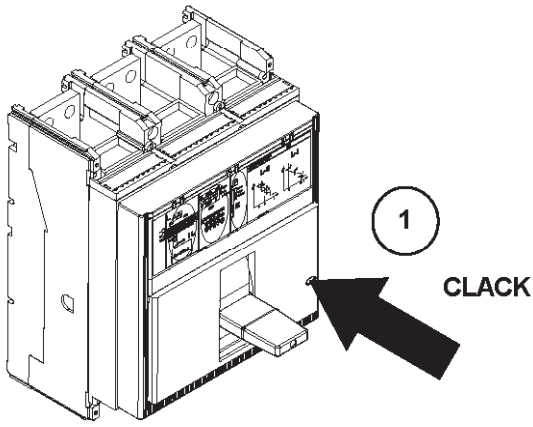


Senza mostrina  
Without Flange



55

PR231/P

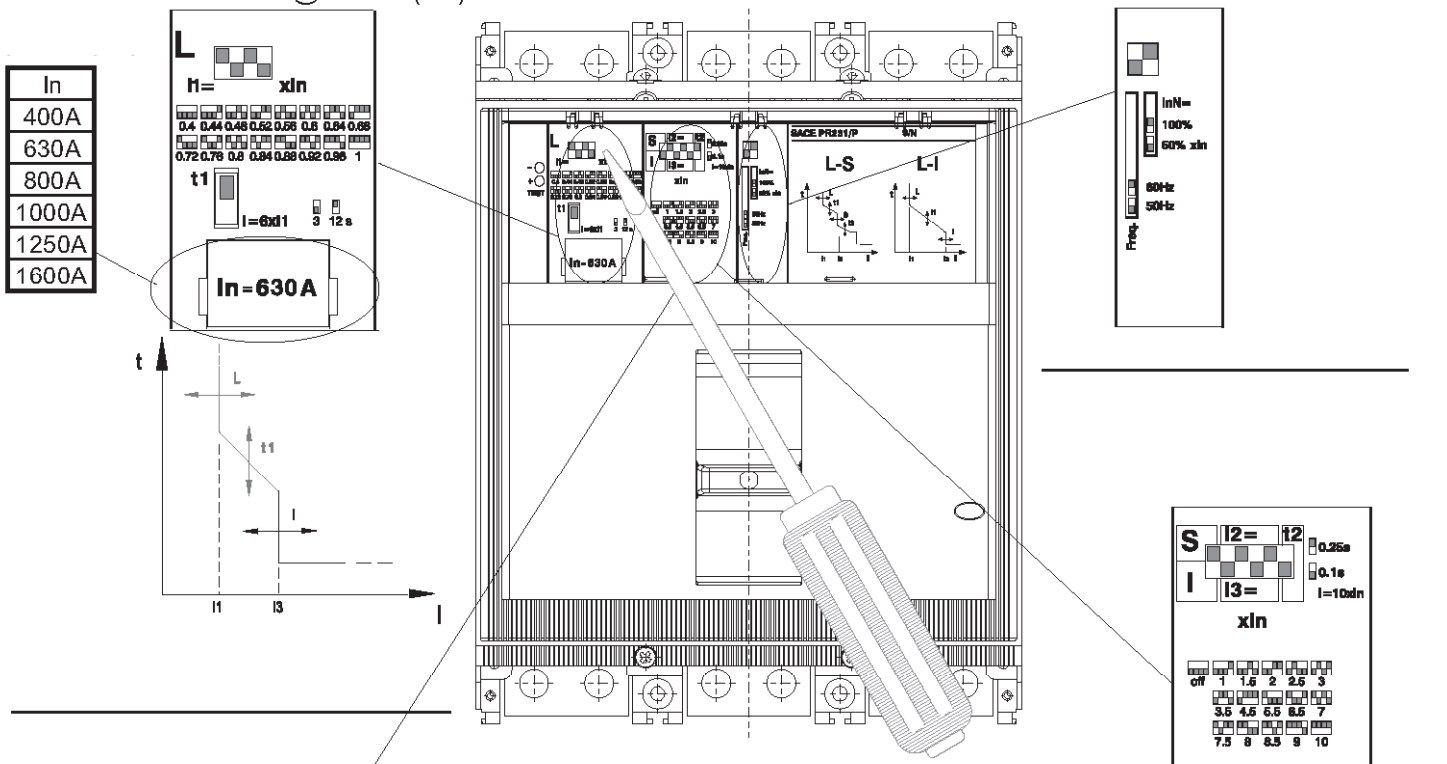


**Esempio-Example-Beispiel-Exemple-Ejemplo**

$I_n = 630 \text{ A}$   
 $I_1 = 630 \times 0,8 = 504 \text{ A}$   
 $t_1 = 12 \text{ s @ } 3024 \text{ A (6I)}$

**Esempio-Example-Beispiel-Exemple-Ejemplo**

$I_n N = 100\% I_n$   
 Freq. = 50Hz



$I_n$
400A
630A
800A
1000A
1250A
1600A

**L**

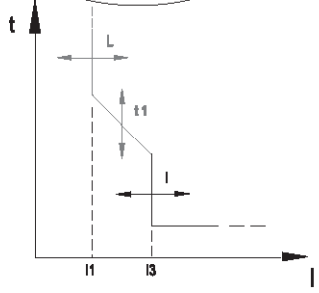
$I_1 = x I_n$

0.4	0.44	0.48	0.52	0.56	0.6	0.64	0.68
0.72	0.76	0.8	0.84	0.88	0.92	0.96	1

$t_1$

$I = 6x I_n$     3    12 s

**In = 630A**



**S**

$I_n N = 100\%$   
 $60\% x I_n$

80Hz  
 50Hz

Freq.

**S**     $I_2 = t_2$     0.25s

**I**     $I_3 =$     0.1s

$I = 10x I_n$

**x I\_n**

off	1	1.5	2	2.5	3
3.5	4.5	6.5	8.5	7	
7.5	8	8.5	9	10	

$I_n = 630 \text{ A}$   
 $I_3 = 630 \times 7 = 4410 \text{ A}$   
 $I_2 = \text{OFF}$

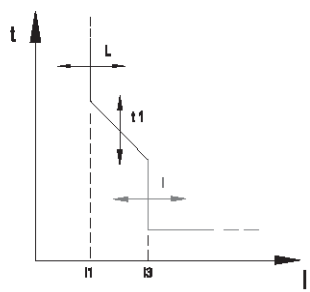
**S**     $I_2 = t_2$     0.25s

**I**     $I_3 =$     0.1s

$I = 10x I_n$

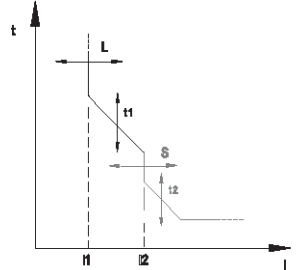
**x I\_n**

off	1	1.5	2	2.5	3
3.5	4.5	6.5	8.5	7	
7.5	8	8.5	9	10	



$I_n = 630 \text{ A}$   
 $I_2 = 630 \times 3 = 1890 \text{ A}$   
 $t_2 = 0,1 \text{ s @ } 6300 \text{ A (10I}_n)$   
 $I_3 = \text{OFF}$

2



**Esempio-Example-Beispiel-Exemple-Ejemplo**

**Esempio-Example-Beispiel-Exemple-Ejemplo**

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